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ORIGINAL ARTICLE

Building up careers in translational neuroscience and mental health research: Education and training in the Centre for Biomedical Research in Mental Health[☆]



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Abstract The number of large collaborative research networks in mental health is increasing. Training programmes are an essential part of them. We critically review the specific implementation of a research training programme in a Translational Centre for Biomedical Research in

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Mental Health (CIBERSAM) in order to inform the strategic integration of basic research into clinical practice to have a positive impact in the mental health system and society. Description of training activities, specific educational programmes developed by the research network, and challenges on its implementation are examined. CIBERSAM has focused on training through different activities which have led to the development of an interuniversity Master's degree postgraduate programme in Mental Health Research, certified by the National Spanish Agency for Quality Evaluation and Accreditation (ANECA). Consolidation of training programmes within the CIBERSAM has considerably advanced the training of researchers to meet competency standards on research. The Master's degree constitutes a unique opportunity to accomplish Neuroscience and Mental Health Research Career-Building within the official framework of university programmes in Spain.

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PALABRAS CLAVE

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Desarrollo profesional en investigación traslacional en neurociencias y salud mental: educación y formación dentro del Centro de Investigación Biomédica en Red en Salud Mental

Resumen El número de redes de investigación colaborativas en salud mental aumenta y con ello la importancia de los programas de formación como parte esencial de la especialización de sus miembros. A continuación revisamos de un modo crítico la implementación específica de un programa de formación en investigación traslacional en salud mental y neurociencias en el Centro de Investigación Biomédica en Red en Salud Mental (CIBERSAM) con el fin de informar sobre la integración estratégica de la investigación básica dentro de la práctica clínica y lograr un impacto positivo en los sistemas de salud mental y la sociedad. Se examinan las actividades de formación y los programas específicos desarrollados por la red de investigación así como los desafíos en su implementación. CIBERSAM ha centrado su formación a través de diferentes actividades que han dado lugar al desarrollo de un máster interuniversitario y a un programa de Postgrado en Investigación en Salud Mental, certificado por la Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA). La consolidación de los programas de formación dentro del CIBERSAM ha avanzado considerablemente la formación de investigadores para satisfacer las necesidades actuales de competencia en materia de investigación. El Máster constituye una oportunidad única para el desarrollo de las habilidades necesarias en investigación en Neurociencia y Salud Mental dentro del marco oficial de programas universitarios en España.

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Mental health is becoming a source of increasing concern.¹⁻³ Mental disorders affect 38% of the population (about 165 million people in Europe; Ref. 2) and their costs represent between 3% and 4% of the gross domestic product in developed countries.^{1,3} Mental disorders also rank among the 20 conditions contributing the largest global measurable of years lived with disability accounting for 7.4% of the world's measurable burden of disease.^{4,5} As such, many research networks have been established worldwide to combat these pressing issues. However, a gap still remains between clinical intervention in mental health and clinical and basic neuroscience research, mainly due to the absence of structured training programmes in translational research. In recent years, several European Union (EU) governments have begun to fund formal, nationwide mental health research consortia in order to improve research capacity and quality as well as ameliorate translational research from basic finding to clinical research and vice versa.⁶ These networks typically provide an

infrastructure linking health care institutions, universities, and other research centres, which enables the development of structured educational activities. The existence of specialised training programmes are essential applying for funding for research projects, consolidating research in hospitals, research centres, and universities and ensuring that the latest research findings are translated to the clinical practice. The training and qualification of new researchers is a prerequisite for the continued development of scientific and technical research, and to warrant that the research and clinical team is updated and that results from ongoing studies and doctoral theses are published. Thus, the public and private organisations that researchers and clinicians are affiliated to are required to encourage education, training, and career building through specialisation. Training should be provided, not only to permanent staff members, but also to novel researchers and trainees which are employed through scholarships, fellowships, and research grants.⁷

The health research system in Spain today revolves around a series of structures that aim to bring together a set of multidisciplinary centres and research groups in biomedicine, which are dependent on both the public and private sectors. Over the past 10 years, those structures developed into stable structures for research cooperation in the field of biomedicine and health sciences named Centres for Biomedical Research Networks (CIBERs)^{8,9} whose activity targets a specific health problem and perform multidisciplinary and multi-institutional research (basic, clinical, and population-based) as a large Translational Research Centre. The composition of these structures is dynamic though, as the number of research groups funded within these cooperative research frameworks varies depending on the demonstrated annual research productivity of the research groups which compose them. Innovative and relevant research is the premises for those annual competitive evaluations carried out by national and international experts which determine, on equity basis, the continuation of the research groups within the CIBERs. Among those structures the Centre for Biomedical Research in Mental Health, the CIBERSAM is the national research network focused on mental health research.¹⁰ In the setting of a series of structures that bring together multidisciplinary groups within the National Health System (NHS), Universities, and Public Research Centres, researchers have found it hard to balance the mission of the consortium with the training mission. The literature contains little information on the development of training programmes for (translational mental health) researchers. Existing reports analyse educational training designed for nurses,^{11–15} students¹⁶ and residents^{17–21} but generally, they fail to address specific issues related to the development of specific competences that may assist on building a career in research.

The research environment nowadays has rapidly changed.²² One of the challenges of being either a researcher or a mental health practitioner today involves a broader access to information and technology.⁸ Critical thinking and continued professional development needs to be encouraged in this context. The amount of data generated by rapid dissemination of findings and large-scale research can be used to directly benefit patients, their families and the social environment, and can lay the ground for the development of new relevant and innovative research projects. Access to large scale data and information may shed light on the search of more effective and personalised treatments, but inefficient management of this information can lead to unproductive outcomes. In that regard, the use of a scientific method can assist on the task of selecting the more adequate treatments and resources that can be applied to a particular patient for obtaining optimal benefits at lower cost in terms of societal and personal burden—i.e., the development of personalised medicine. The access to a large amount of data may also require collaboration with other professionals and allied fields (basic, clinical, academic and industry) to assist on the interpretation and implementation of results. Interdisciplinary research teams integrating joint basic, academic and clinical disciplines can help to answer key questions from different validated perspectives. Another relevant aspect of actual research would be the access to the funds necessary to make use of those data, information and technology resources, and to

conduct interdisciplinary research which is highly competitive because funding opportunities have been decreasing in the recent past years.^{8,9} Thus, the fulfilment of a successful career requires not only the development of adequate critical thinking, networking abilities, comprehensive view of other related fields, but also the access to adequate funding and substantial management skills.⁹ Therefore, a career in translational research calls for the enhancement of many complementary skills and adequate guidance in order to increase productivity and validate results that can be translated into clinical practice. Moreover, the development of specialised training programmes on research invites graduates to improve their training and to initiate themselves in research activities and academic fields and subsequently can serve to consolidate a research or a teaching career in the public or private sector.

Throughout these lines, we examine the challenges of mental health education during all of the development of a particular training programme in the context of a translational centre for biomedical research in mental health with its correspondent clinical and societal implications. Specifically, we outline training activities and specific educational programmes developed within the CIBERSAM research network, with particular focus on the potential impact of the implementation of a Master's postgraduate programme and its role on developing an integrative clinical and research practice that may have an impact on patients, their families, and society.

Organisation of educational and training activities

The translational centre for Biomedical Research in Mental Health (CIBERSAM)¹⁰ comprises 24 leading basic and clinical research groups in mental health in Spain with a total of 450 researchers—24 research group leaders, 289 adjunct researchers, 54 research associates and 83 research staff. The objective of this network is to conduct translational research in areas of interest in the fields of clinical neuroscience and mental health by means of collaboration between hospitals, specific research units, and universities.

Given the importance of the training of new researchers as a prerequisite for the continued development of scientific research, innovation and translation of results into clinical and academic practice, a training coordinator was appointed within the CIBERSAM consortium in order to promote the organisation of educational activities within the framework of a predefined training programme. The presence of an education and training coordinator contributes to design and enforce the objectives of the research training programme, which aimed at: (1) facilitating the training of researchers in new technologies and trends in research; (2) enhancing the training of researchers in strategic areas of mental health congruent with consortium's main multidisciplinary and translational objectives; (3) prioritising training in research methodology; (4) encouraging collaborative activities within all research groups in this network (basic, clinical and academic); and (5) strengthening the link between research and clinical practice, and creating a research culture¹⁰ that could make results to be easily translated into clinical practice.

Table 1 Structure and organisation of education and training in translational neuroscience and mental health research within the CIBERSAM.

CIBERSAM training program: 2008–2012			
A. Research placements Clinical, Basic and Academic departments	A.1 National		1. Sites within the CIBERSAM 2. Other relevant sites
	A.2. International		3. Collaborating sites 4. Specific training in relevant sites
B. Training courses	B.1 Priority courses	CIBERSAM consortium courses	5. Questionnaires Validation 6. Intensive Introductory Course for Research in Neuroscience 7. Laboratory of Ideas ^a
		CIBERSAM'S groups courses	8. Updated in http://www.cibersam.es
	B.2 Other courses of interest	Others	9. Master's Degree in Statistics and Research Methods 10. Research and Statistics 11. Quantification tools in Neuroimage 12. Online training for professionals 13. Websites for patients and families 14. Blogs and forums to share expertise
C. Dissemination			
Master's degree on research in mental health (2013–2014) ^b In person and on line classes 133 ECTS (MIN 60 ECTS: 33 mandatory, -24 practiced based-, 21 optative and 6 master's thesis)			
Mandatory modules (39 ECTS)	Elective modules (94 ECTS)		
Module I ^c <i>General aspects of neurobiology</i> 15. General aspects of neurobiology OL (9 ECTS) <i>Elective research placement Type "A"</i> (6 ECTS) <i>Elective research placement in a lab or clinical unit</i> (18 ECTS) <i>Master's thesis</i> (6 ECTS)	Module II ^d : Fundamentals in Mental Health Research (Min 8 ECTS) <i>Introduction to Biomedical Research</i> 16. Research Methods in psychiatry and mental health (OL) (6 ECTS) 17. Research in biomedicine (8ECTS) 18. Career development in research (4 ECTS). 19. Introduction to research in neuroscience (2 ECTS). <i>Psychopathological basis in psychiatry</i> 20. Biological bases of psychiatric psychopathology (OL) (4 ECTS) 21. Basic clinical and therapeutic aspects in Psychiatry OL (4 ECTS). 22. Genetics and Psychiatry OL (4 ECTS)	Module III ^d : Biological and Therapeutic Basis in Mental Health (Min 3 ECTS) <i>Animal Models in Psychiatric psychopathology</i> 23. Animal Models in Psychiatry (OL) (4 ECTS) <i>Advanced psychopharmacology</i> 24. Neurotransmitters receptors (4 ECTS) 25. Psychopharmacology 1 (OL) (3 ECTS) 26. Psychopharmacology 2 (3 ECTS) 27. Phamacodependency (OL) (4 ECTS) 28. Pharmacogenetics and Pharmacogenomics (OL) (3 ECTS). 29. Physiological therapy (OL) (3 ECTS)	Module IV ^e : Clinical Aspects of Mental Health Research (Min 3 ECTS) <i>Epidemiology in Psychiatry</i> 30. Epidemiology in Psychiatry (OL) (4 ECTS) <i>Clinical Psychiatry</i> 31. Psychopathology (OL) (3 ECTS) 32. Cognitive Functions (OL) (3 ECTS) 33. Affective Disorders Update (OL) (3 ECTS) 34. Bipolar disorder Update (OL) (3 ECTS) 35. Schizophrenia Update (OL) (3 ECTS) 36. Child and Adolescent Psychiatry Update (OL) (3 ECTS) 37. Impulse control disorders (OL) (3 ECTS) <i>Social Psychiatry</i> 38. Social Psychiatry (OL) (3 ECTS)
OL = On-line training.			
^a The Ideas Lab is aimed at young postdoctoral fellows and doctoral students completing their studies with the main objective of promoting and maintaining a critical mass of young researchers specializing in mental health.			
^b Universidad de Cantabria, Universidad Complutense de Madrid, Universidad Autónoma de Barcelona, Universidad deBarcelona and the Universidad de Cádiz.			
^c Common focus on research.			
^d Basic Research.			
^e Clinical Research. http://www.mastersaludmental.unican.es/ .			

Since its inception, CIBERSAM has thus developed its own training programme focused on 2 key areas: training courses and research placements. Each one of the research centres affiliated to the network would make a proposal on specific courses or placements to be included on the global training programme based on their own educational characteristics (clinical, basic or academic). This would include doctoral and postdoctoral accredited courses held at the correspondent institution, continuing professional development postgraduate courses, and clinical rotations or research placements. Members of the consortium are also able to promote training activities to be developed by joint institutions together with the communication department of this research network. The programme is also complemented with external (national or international) activities, such as training and visits or placements in other services and units outside the consortium (see [Table 1](#)). The resulting training programme is aimed to enhance and complement the training of researchers and increase their knowledge applied to the specific research programmes within the consortium.

The appointed training programme coordinator assures the courses or placements meet the quality criteria for being included on the training programme. These criteria include: (1) the relevance of the courses/training opportunities for the aims of the consortium; (2) adaptation to the demands of clinical/research practice; (3) related to Psychiatry and research in mental health; (4) integration of research from a multidisciplinary approach; (5) being supported by an accredited academic institution and/or (4) being accredited by prestigious educational agencies that meet the education criteria for continuing professional development; and/or (6) being certified by National Spanish Agency for Quality Evaluation and Accreditation (ANECA).

Special mention is to be made to the ‘‘CIBERSAM Ideas Lab’’, a unique forum for scientific discussion between young researchers, which offers the possibility of establishing partnerships and contrasting ideas, with an emphasis on innovation and translational research. The Ideas Lab is aimed at young postdoctoral fellows and doctoral students completing their studies with the main objective of promoting and maintaining a critical mass of young researchers specializing in mental health. Other educational activities include dissemination to other professionals, patients and their families outside the consortium (that includes specific medical advice and information on psychiatric and mental health issues through the organisation of psychiatric forums and web sites^{23,24} see [Table 1](#)).

From 2008 to 2012, a fixed annual percentage (2%) of the overall funding of the consortia was explicitly dedicated for educational purposes. Up to 80% of this funding should be expended on priority courses and rotations in the specified sites composing the research network ([Table 1](#)). The remaining 20% could be used to fund other courses and rotations/research placements abroad, but related to the specified subjects or research projects covered by the network. From 2013 onwards, 2 thirds of the CIBERSAM’s training funding are dedicated to assist its members and associates with the registration fee and research placements within the recently established interuniversity CIBERSAM’s Master’s degree in Mental Health Research. No research funds are diverted for training. The approval process for training includes filling out an application form online and

consequent authorisation from the principal leading investigator of the correspondent research group (PI), the training coordinator and the management committee. The approval process for training within the CIBERSAM includes the determination, by the principal investigator (PI) of each group, of whom and how the training budget would be invested. Each institution through the PI followed by the CIBERSAM training programme coordination and the management committee would assure the adequate investment of the budget and the balance with the research activities the researcher would have assigned in his/her research Centre. Once the annual training programme has been established, trainees would be able to attend to any of the specific courses or training activities by obtaining permission fulfilling an online application form on which detailed rationale of the convenience and adherence to the programme of the proposed training activity should be provided. Costs for travel, accommodation and registration should be specified.

Pre-doctoral and post-doctoral fellows are prioritised (in terms of funding) for training activities on the basis of their fellowship’s implicit requirement for training. Also, those researchers that could benefit from a rotation or undergo a specific training to learn about a particular technique/assessment method that would enhance the development of a research project or research programme would also be prioritised. It is an equity model such that the researchers who have never benefited from the training budget have priority over those ones that have been funded before.

Partnering academic institutions contribute to emphasise translational research and to promote transferability of results to society. Partnering with industry not only fulfils this goal but also facilitates that researchers within the consortium get involved on clinical trials funded by the pharmaceutical industry. Both transferability of results and to economic development of the society are among the main aims of CIBERSAM.

Description of the educational and training activities

Attendance to training courses and research placements

The design of the training programme and the approval process for training aim to assure relevance of training for the trainee and for the curricula of the group to which associated researchers and employees researchers are associated. Priority courses and other courses of interest are reflected on the research network’s training programme (see [Table 1](#) for an overview and www.CIBERSAM.es for the updated programme with information of the particular courses that are taught and the research projects on which trainees can be involved¹⁰). Researchers would get involved not only in research programmes carried out in their correspondent institutions but in those ones carried out in their host institution, if an external rotation/placement is approved, given the correspondent approval from the PI (see www.CIBERSAM.es). The amount of educational courses and placements has increased annually. The consortium has funded 35 places on courses during its first year (2008) with

an increase of 50% on consequent years to date. Importantly, over the last year groups within the research network themselves organised 46 out of 68 courses and founded places to stay for 23 researchers. In terms of clinical practice, special mention must be made of the courses related to psychotherapy and assessment scales in basic research, neuroscience, data processing, and accreditations for experimental activities with animals. The “Intensive Introductory Course for Research in Neuroscience” (see Table 1) is among the most popular in attendance. With regard to research placements during its first 6 years, the training programme has funded more than 69 visits for researchers. Also, it is important to note that of the total weeks of stay funded by the programme in 2013, 82.6% were in research groups within the consortium. The remaining 17.4% were undertaken abroad, with the US, UK, Germany and France being the most popular destinations.

Dissemination and online training

In order to facilitate access to training in specific fields in mental health, CIBERSAM offers multimedia training on “Prognostic Factors in Schizophrenia” on the “*Improving Life*” (“*Vivir mejor*”) site, accessible to both medical professionals and the general public.²³ The platform www.PuedoSer.es on bipolar disorder was created with the support of CIBERSAM according to a psychoeducational model of the disease applied to social networks, thus making it a very useful tool for professionals working in bipolar disorder, as well as patients and relatives. Nowadays a new website with information concerning the use of clozapine is being built under the auspices of the consortium. The general website of the research network also has its own news section, which outlines efforts to spread useful information, sets out the interventions of its members and their achievements, and presents advances in the media.²⁴ On the other hand, CIBERSAM is leading and pioneering the development of a roadmap for mental health research in Europe (ROAMER, a three-year project funded by the European Commission, under the Seventh Framework Programme)²⁵ which also comprises workpackages dedicated to educational and curriculum development using a pragmatic and comprehensive approach with active involvement of renown mental health sciences and practitioners and active stakeholder involvement.

Towards a specific and regulated official training in mental health research

The experience gained developing and providing access to the research network training programme has revealed clear needs and goals for the future, which has become much more uncertain and competitive for young researchers.²⁶ New objectives and challenges of research training and its particularities in mental health have arisen in the context of this large translational research network (see Fig. 1). The challenging requirements have led to the implementation of a specialised interdisciplinary post-graduate programme. Research networks such as CIBERSAM consortium often constrain the scientific independence of individual faculty, let alone trainees. Even when the set objectives of the training

programme of this research network have been met in terms of participation and quality of the resources that have been offered to the trainees, it has failed to provide follow up of career development of those researchers who did undergo the training. Those common issues that have arisen are summarised in Fig. 1. Such broad demands cannot be addressed on the particular context of individual courses or placements. Therefore, the important mission to prepare trainees for independent scientific careers would have to address in the context of a structured and supervised career plan (see Table 1 and Fig. 1). Taken together, the development of a master’s degree aims to address some of those challenges.

In order to fulfil unmet demands in research and to meet the need for a research culture and knowledge based mental health practice, the CIBERSAM research network is thus now offering the possibility to undertake mental health research training at Master’s and Postgraduate level (<http://www.mastersaludmental.unican.es/> see Table 1). The official Master’s degree started in September 2013 and it will allow establishing and ensuring training on the real interests of young researchers in psychiatry and mental health neuroscience and serving as an element of cohesion between groups and between the universities to which these groups belong (see Table 1 and Fig. 1). It is a highly leveraged programme that builds on existing academic resources from five leading universities in Spain which are part of the consortium (see Table 1 and Refs. 27–30). The Master award is open to all graduate students in biomedical sciences and heavily relies upon online training methodologies (up to 70% of the courses are taught online) and on mandatory research placements. As per the participation on a national research structure network, this training incorporates, not only experience from senior researchers but also latest findings and research methods applied to mental health research into the academic programme of universities and postgraduate courses curricula. This Master’s degree aims to enhance training on mental health issues and research in neuroscience through a comprehensive programme (see Table 1) that provides the students with a framework that covers the full spectrum of biological, pharmacology, genetic, psychological, epidemiological, pharmacological, social and economic aspects of research. The Master itinerary also benefits of the existing training programme in terms of research placements, participation in active research grants and programmes within the CIBERSAM consortium and extensive educational offer within the consortium. It also benefits from the expertise of its faculty members who act as active consultants on the coordinated road map for the promotion and integration of mental health and well-being research across Europe (ROAMER²⁵). The expertise derived from the use of a common methodology and conceptual framework that covers the full spectrum of biological, psychological, epidemiological, public health, social and economic aspects of mental health and well-being adds crucial value to the master’s philosophy. This Master’s award aims thus to optimise the training and promote career-building of new members of the research community, bringing together and academia and clinical centres in partnership with industry and family associations.

The Master is addressed to national and international students interested in research in neurosciences and mental health. It offers a total of 133 ECTS credits that

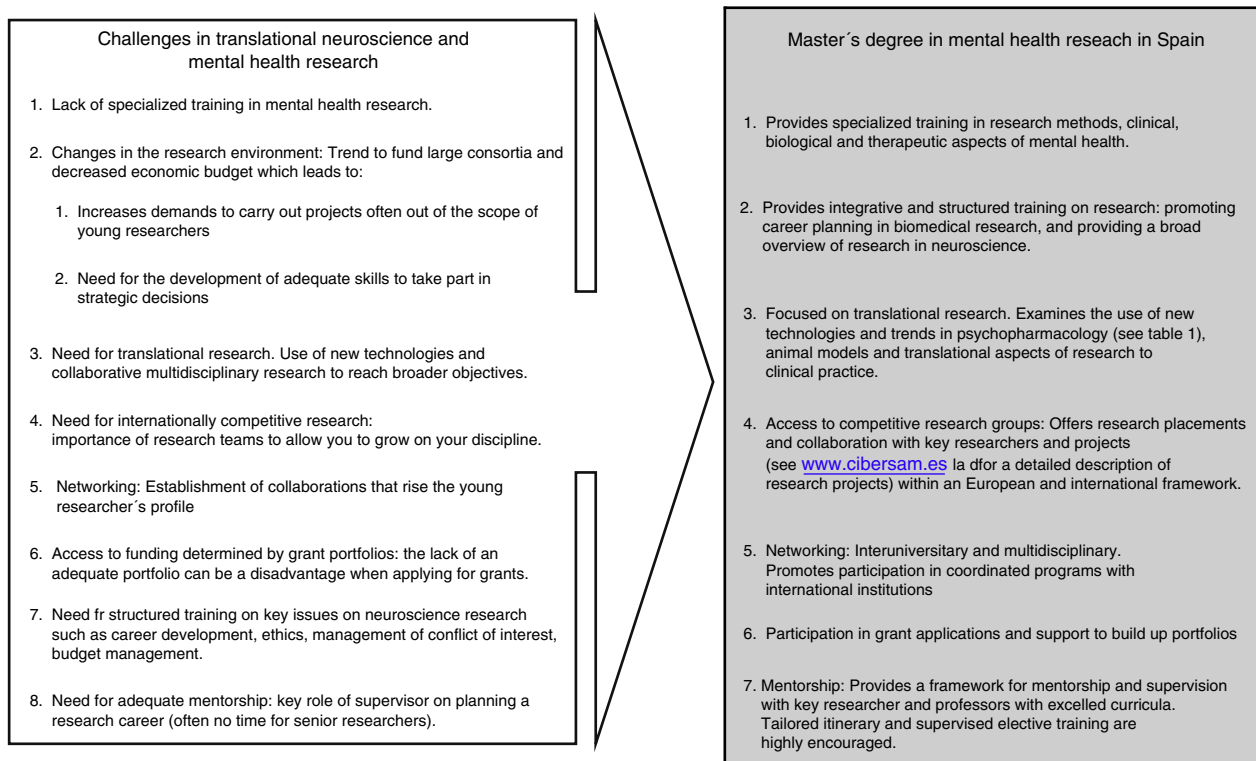


Figure 1 Challenges to education and career development within the context of CIBERSAM that lead to the development of a Master's degree in Mental Health Research (as noted by Jadogic et al., 2013 and Johnson 2011).

spread over four modules and subjects and two placements in mental health research units within the CIBERSAM consortium (see Table 1). The completion of this master allows the trainees to develop their own research hypothesis and establish their own research objectives by encouraging critical productive thinking leading to the establishment of new relevant objectives. By improving their training and initiating themselves in research activities and academic fields a research or teaching career in the public or private sector can be consolidated. Furthermore, the completion of the Master's Degree gives access to research grants within the CIBERSAM that are directed to launch young researchers on a research career, and the opportunity to subsequently complete an official PhD degree. For instance, at the University of Barcelona, the Master's Degree in Mental Health Research gives access to the official PhD programme in Biomedicine and/or in Medicine (see www.mastersaludmental.unican.es or supplementary material Table 1 for a detailed list of the official PhD programmes the Master's Degree gives access to on each affiliated University). The main aim would be to improve clinical care related to mental health in our society through the knowledge generated by innovation and translational research in psychiatry and neurosciences.

Throughout the last semester of 2013 6 courses have been taught, one in person course and 5 courses online. A total of 33 students from all over Spain with different academic backgrounds (including psychology, medicine, biology, etc.) are enrolled on this first edition of the Master's Degree. Of those, 11 students are CIBERSAM's researchers who have benefited from partial funding to cover the travel expenses

for the research placements or from scholarships to assist with the registration fees.

Analysis of educational and training activities

Knowledge of trend methods, latest findings, technology and the resources available in research enhance training and facilitate clinical and research career building through continuing professional development. The increasing awareness of the needs for training in neuroscience and mental health research, especially in young and early career researchers, has led to a redefinition of contents and the implementation of a specialised master's degree within the broad context of the CIBERSAM research network training programme.

The initial designation of a training coordinator facilitated the identification of courses of interest and relevant research placements for researchers which has been of great importance for the development of an adequate training programme that can meet the needs both for the consortium and the researcher. The need for a comprehensive approach that can integrate diverse disciplines and research methods has clearly enhanced the mobility of the trainees, not only within the consortium research groups but also in other national and international placements. Trainees have attended courses and have undergone placements at other institutions aimed to develop or to improve specific research techniques, and to better understand the experimental models or research methods used in a particular research group enhancing networking with other professionals outside their own institutions. The preference for

courses and placements taken abroad indicates the interest of the programme and the importance of continuing funding. Moreover, it is important to note that a significant number of the courses funded by the CIBERSAM have been part of various university doctoral programmes, Master's degree and postgraduate programmes. The quality standards aimed for this programme are meant to have an impact in terms of the implementation and improvement of research within the clinical, basic and academic research centres to which the trainees belong to. It is expected that improvements on their training experience and thus curricular enhancement would lead to increasing the number of grants, positions and collaborative publications on the trainees. However, this important issue has not been examined due to lack of data collection on specific measures for performance of each trainee after the training. Feedback from the trainees experience would also be another important issue to be taken into account for the evaluation and improvement of the programme. Qualitative measures on satisfaction, together with quantitative measures of performance of the trainees resulting from their participation on training activities funded by the consortium, would thus be obtained in the near future in order to increment the quality of the training programme and as an accurate approach to the results derived from the training activity. An important remark is that the "CIBERSAM Ideas Lab" has also helped to establish a crucial network to support young researchers on the development of research projects and on choosing careers pathways, with a special focus on innovation and translational research.

The experience obtained throughout the development on the training programme has revealed the real needs of the research groups and highlighted the need for a specialised structured programme which can also provide adequate certification for research in mental health. In order to make the fulfilment of those needs in mental health research extensive to other trainees, students and practitioners within and outside the consortium a structured Master's degree has been developed through the universities affiliated with this network. The Master degree aims to broaden mental health training including some of the identified key aspects (see Fig. 1) in actual research through an integrated and structured official programme. The Master in Mental Health Research would be a pioneering qualification in mental health within in the context of the research networks in Spain (CIBERs programme). From its privileged position as a specialised consortium, the existing association among individual institutions with academia (Universities and educational centres) composing the research network ensures that the training programme is continually updated and makes it possible to provide such an official award. The official establishment of a Continuing Professional Development (CPD) programme³¹⁻³³ (undertaken by residents and professionals) has also encouraged the development of this initiative. The relevance of the development of this training programme is determined by its multidisciplinary approach and the fact that this will be the first national postgraduate research programme to address neuroscience research in psychiatry and the specific priorities and issues related to this area. Its official accreditation also supports the integration of research in response to the needs of patients.³⁴

With the development of a Master's Degree in Mental Health Research, we aim to strengthen the role of training in mental health (psychiatry, psychology and allied professions) in order to enhance the development of researchers and professionals involved in this area,³¹⁻³³ having strong social implications in terms of adequate career-building and training of the "future research leaders" on the mental health research field.³⁵ The inclusion of mental health practitioners in this offer would lead to a better integration of research into clinical practice to serve community, which is composed by clinical personnel, patients and their relatives. Furthermore, through the development of accredited postgraduate programmes such as the Master's Degree in Mental Health Research, the CIBERSAM is contributing to the definition of an official research tenure track approved by the Spanish governmental and educational authorities, serving to its mission and vision to educate mental health professionals and contribute to an educated society, empowered to face mental health challenges.

As can be learned from this particular experience, the design and development of a structured educational and training programme in neuroscience and mental health research is of utter importance as a way of facilitating continuing professional development, improving quality of research, and research translation into clinical practice. The objectives of a training programme in research must be consistent with the implementation of a new research system in mental health.¹⁹ There is an emerging need to contribute to the lifelong learning, skills, and empowerment of clinical and research staff. The creation of a general framework for the promotion and coordination of scientific and technical research would contribute to sustainable development and social welfare. On the other hand, the generation and dissemination of knowledge and innovation by means of industrial and academic partnering with trained professionals can lead to the implementation of the results into their daily practice.^{20,21} It is thus fundamental to ingrate clinical and research programmes for research in neuroscience and mental health. Complex illness (such as psychiatric illness) requires complex interventions and its comprehension requires multidisciplinary approaches and translational research. The general overview of the educational and training programme in mental health provided could easily be applied to other settings and thus be extrapolated and implemented in other countries and consortia for a global research in mental health. It is only through the creation of a comprehensive network for research and training on mental health education and translational neuroscience that enhancement and career building in mental health research can be positive and results of multidisciplinary research projects can succeed.

Ethical responsibilities

Protection of people and animals. The authors declare that this investigation did not require experiments on humans or animals.

Confidentiality of data. The authors declare that no patient data appears in this article.

Right to privacy and informed consent. The authors declare that no patient data appears in this article.

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Conflict of interests

The authors declare no conflict of interests.

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Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.rpsmen.2015.04.005>.

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