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# Relevant Differences in Perception and Knowledge of Professionals in Different Spanish Autonomous Communities Regarding Availability of Resources for Patients with Dual disorders

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**Objectives.** To assess the knowledge of health professionals attending patients with dual disorders about specific resources for patients with this condition in different Spanish regions.

**Methods.** Observational, cross-sectional, multicenter study to compare the perceptions of healthcare professionals (n=659) with reality regarding specific resources available for patients with dual disorders in Spain. The professionals completed an online questionnaire. Nineteen commissioners and managers responsible for national and regional substance abuse programs also completed the questionnaire.

**Results.** A representative sample of professionals from each community (553 centers in 235 Spanish cities) participated in the study. Most participants (93.2%) felt that specific resources for patients with dual disorders are needed. High percentages of professionals thought that there were no specific workshops (88.4%), subacute units (83.1%), day hospitals (82.8%), specific day centers (78.5%), or outpatient programs (73.2%) for patients with dual disorders. The real knowledge of professionals regarding the existence of specific resources varied according to the type of resource and autonomous community. The professionals generally underestimated the number of units available in their communities.

**Conclusions.** There were clear differences in the real knowledge that healthcare professionals had about the resources available for patients with dual disorders in

relation to the autonomous community where they were practicing. Actions are needed to harmonize knowledge nationally, for example, a single registry, white paper, or a national program for patients with dual disorders.

**Keywords:** Dual pathology, Dual disorders, Healthcare professionals, Professional perception, Level of knowledge, Specific resources

*Actas Esp Psiquiatr 2016;44(1):1-12*

## Diferencias relevantes en la percepción y el grado de conocimiento de los profesionales de las distintas Comunidades Autónomas españolas sobre la existencia de recursos para pacientes con patología dual

**Objetivos.** Evaluar el grado de conocimiento de los profesionales sanitarios que atienden a pacientes con patología dual acerca de recursos específicos disponibles para esta patología en las diferentes comunidades autónomas españolas.

**Metodología.** Estudio observacional, transversal y multicéntrico para comparar la percepción de los profesionales sanitarios (n=659) con la realidad en cuanto a los recursos específicos disponibles para los pacientes con patología dual en España, mediante un cuestionario on-line, que fue cumplimentado también por los 19 comisionados y gestores responsables de los planes nacionales y regionales de drogas.

**Resultados:** Participó en el estudio una muestra representativa de profesionales de cada comunidad, procedentes de 553 centros de 235 ciudades españolas. La mayoría de participantes (93,2%) opinó que es necesaria la existencia de recursos específicos en patología dual. Porcentajes elevados de profesionales consideraron que no existían talleres

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específicos (88,4%), unidades de subagudos (83,1%), hospitales de día (82,8%), centros de día específicos (78,5%) o programas ambulatorios (73,2%). El grado de conocimiento sobre la existencia de recursos específicos varió en función del tipo de recursos y comunidad autónoma. En general, los profesionales subestimaban el número de unidades ofrecidas en sus comunidades.

**Conclusiones.** Existen claras diferencias en el grado de conocimiento de los recursos para pacientes con patología dual entre los profesionales, en función de la comunidad autónoma donde ejercen. Son necesarias actuaciones de armonización a nivel nacional, como un registro unificado, un libro blanco o un plan nacional para patología dual.

**Palabras clave:** Patología dual, Diagnóstico dual, Profesionales sanitarios, Percepción de los profesionales, Grado de conocimiento, Recursos específicos

## INTRODUCTION

Dual pathology, also known as dual disorders, can be defined as the simultaneous or sequential presence of an addictive disorder and another mental disorder; its prevalence [among people with substance abuse disorders] is greater than 50%.<sup>1-15</sup> Compared with the presence of each disorder separately, the existence of dual disorders is more difficult to detect, diagnose and treat, and requires the use of more resources, which may jeopardize the chances of successfully managing the condition.<sup>10,16-20</sup>

Traditionally, resources for the treatment of mental illness and addiction are organized in parallel or sequentially, which has been associated with poor adherence to treatment and improper management of the problems most commonly associated with this co-morbidity.<sup>13,14,16,17,21</sup> Therefore, the implementation of integrated services and resources specifically designed for patients with dual disorders is a major challenge for healthcare professionals and managers.<sup>13,19,22</sup> In recent observational studies in Spain, it has been found that the professionals involved in their care find that the integrated and specific healthcare resources available for patients with dual disorders are clearly insufficient.<sup>22</sup> It has also been observed that professionals have scant knowledge of the resources available for patients with dual disorders.<sup>23</sup> The importance of studying the perceptions of the professionals involved in managing dual pathology should be highlighted.<sup>22-25</sup> In fact, the opinion of professionals is receiving more attention in recent years,<sup>26,27</sup> and has been shown to be a key factor in planning and evaluating health needs by health authorities,<sup>22-24,28</sup> although the perceptions of this field by professionals may vary in relation to different factors, such as training, specialty, or geographic area.<sup>22,23</sup> In this sense, considering that the Spanish health system differs substantially between autonomous communities, it is important to assess the

degree of consistency or inconsistencies in the system. This study was undertaken to examine the differences between professionals working in the different autonomous communities in their perception and knowledge of the specific resources available for patients with dual disorders.

## METHODS

Between February and May of 2011, an observational, cross-sectional, multicenter on-line study of healthcare professionals involved in the management of patients with dual disorders in Spanish healthcare centers was conducted to evaluate their perceptions regarding the availability of specific resources for patients with dual pathology and their needs. The findings were compared with reality based on data provided by commissioners and managers responsible for national and regional drug programs. A group of experts in different clinical and academic aspects of dual pathology designed a questionnaire ([http://www.patologiadual.es/profesional\\_publica.html](http://www.patologiadual.es/profesional_publica.html)) that was distributed online (available on the website of the Spanish Society of Dual Pathology: [www.patologiadual.es](http://www.patologiadual.es)). The questionnaire contained various items addressing the perceptions of professionals regarding the resources currently available for patients with dual disorders (such as outpatient units, specific programs, inpatient units, detoxification units, day centers, acute admission units, reemployment programs and centers, or therapeutic communities), and questions about their opinion on the need for specific resources. The study protocol was approved by the ethics committee of Hospital Vall d'Hebron (Barcelona) and the procedures were carried out in concordance with the ethical principles of the Declaration of Helsinki. After receiving a complete description of the study, health professionals voluntarily agreed to participate in the study without compensation.

Three e-mails were sent to all the members of the Spanish Society of Dual Pathology (SEPD) and to the professionals registered in the SEPD database (about 2000 professionals), inviting them to participate. The questionnaire was also made available to all the professionals working in the field of mental illness or substance abuse in Spain through the SEPD website ([www.patologiadual.es](http://www.patologiadual.es)). For purposes of comparing the perceptions of professionals regarding available resources in the months of June and July of 2012, the on-line questionnaire was also sent to the 19 commissioners and officials of national and regional substance abuse programs (17 commissioners in the different autonomous communities and 2 in Ceuta and Melilla). Statistical analysis was carried out by obtaining frequency tables and percentages for categorical variables and measures of central tendency and dispersion for continuous variables (mean, standard deviation [SD], minimum and maximum, and 95% confidence intervals). The degree of agreement between the perceptions of professionals and the

reality known to the commissioners was expressed as the percentage coincidence.

**RESULTS**

In the study, 659 health professionals participated, 55% men (n=286). They were from 553 centers in 235 Spanish cities, including all the autonomous communities. Almost all centers (95.9%) provided 1 to 2 participants, 2.6% provided 3 participants, 0.7% provided 4 participants, and only 0.04% provided 7 participants. The autonomous communities that contributed the largest proportion of professionals were Madrid (17.9%), Catalonia (17.1%), Andalusia (15.5%), Valencia (8.6%), Galicia (7.3%), Basque Country (5.8%), Canary Islands (4.7%), Castile-Leon (4.7%), and Castile-La Mancha (4.4%) (Figure 1). Most participants were psychologists (43.4%) or psychiatrists (32.9%), followed by family/primary care physicians (14.6%) and physicians with other specialties (7.6%). A small proportion of professionals had two or more specialties. In the overall sample of participants, the largest proportion of institutions were

substance abuse or rehabilitation centers (26.4%), hospitals (25.0%), health centers (3.4%), and municipal governments (3.3%) .

Of the 19 commissioners invited to participate, 16 (84.2%) completed the questionnaire. No response was obtained from three commissioners (Aragon, Cantabria and Melilla).

Regarding affiliations with scientific societies, most participants belonged to the SEPD (34.9%) and Socidrogalcohol (14.6%) and, to a lesser extent, Sociedad Española de Toxicomanías (SET) (9.7%), Sociedad Española de Psiquiatría (SEP)/Sociedad Española de Psiquiatría Biológica (SEPB) (7.7%), and Asociación Española de Neuropsiquiatría (AEN) (5.0%).

The mental health network yielded 40.5% of participants and the substance abuse network yielded 35.4%, while a smaller percentage was affiliated with the united substance abuse and mental health network (13.5%) and from both separately (10.3%). Only 0.3% did not belong to any network.



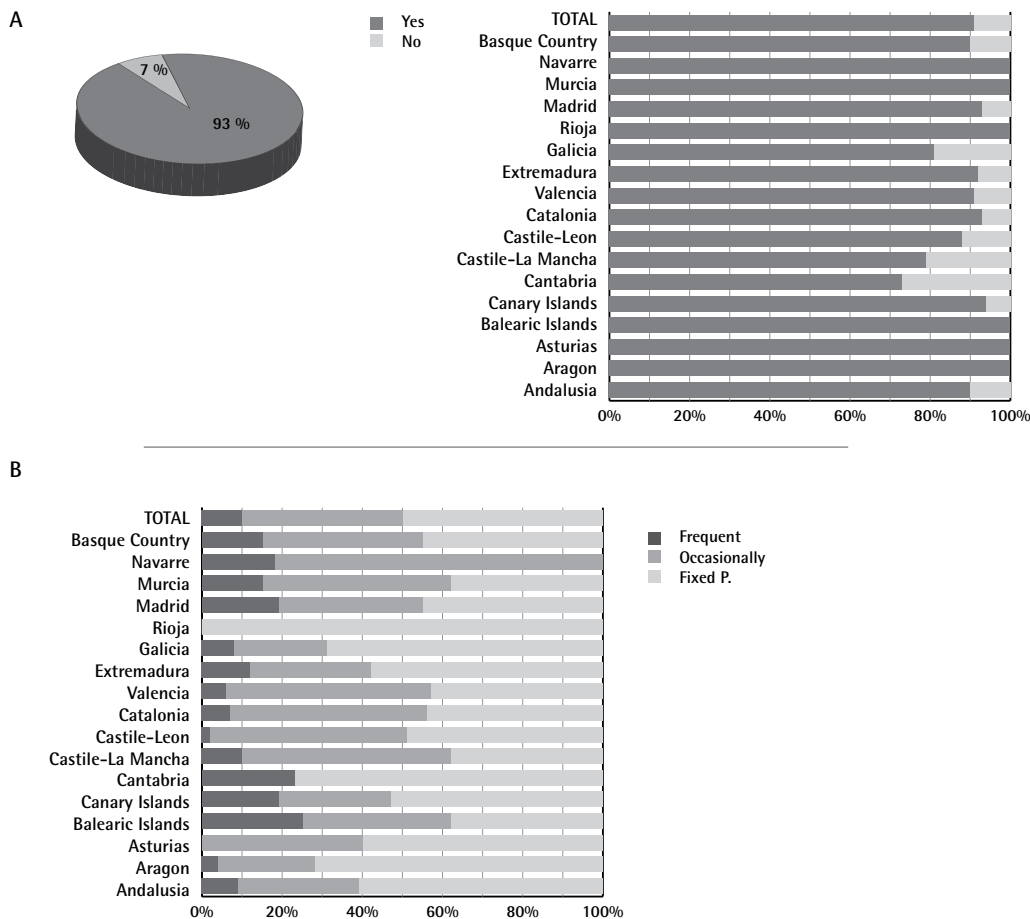
**Figure 1** | *Geographic distribution of study participants*

Regarding the assessment of the integration of the mental health and substance abuse networks, differences were observed between regions, with Navarre and Basque Country being the autonomous communities where professionals were most knowledgeable about the availability of integrated resources. When these data on perceptions were compared with the data provided by commissioners, the responses of 74.5% of professionals were consistent with reality, and the professionals from the Balearic Islands, Extremadura, the Canary Islands, and Andalusia were most knowledgeable about the existence of a single network of mental health and substance abuse. Regarding the perception of the professionals surveyed, most participants (93.2%) felt that specific resources for dual disorders are needed, with all the professionals in Aragon, Asturias, Balearic Islands, Rioja, Murcia, and Navarre being in favor of this idea (Figure 2A). Among the specific resources needed, most participants in all the autonomous communities said that acute detoxification centers are needed (100% of the participants in Cantabria and Navarre). In general, the participants in the different autonomous communities thought that most of the dedicated resources were public and only a small part were private centers providing commissioned services, or private, with the exception of Rioja, where most participants thought that the dedicated resources were private providing commissioned services. In the total sample, more than half of participants (53.5%) stated that they had some knowledge of the dedicated resources available, whereas a smaller percentage (29.6%) said that they had full knowledge. The percentages were similar in most of the autonomous communities.

According to the participants in all the communities, the profiles of the professionals working at dedicated centers were physicians, psychiatrists, psychologists, nurses and social workers, with the exception of Cantabria, where only physicians, psychiatrists, and psychologists worked at dedicated centers. There were major differences between communities in the changes and/or rotation of hired professionals, the Rioja community having the perception of the existence of more permanent positions and the Navarre community having the greatest perception of high turnover rates (Figure 2B). Most participants (73.2%) thought that there were no outpatient dual disorders programs, the percentage being even higher in communities such as Castile-Leon (83.3%), Andalusia (84.9%), and Canary Islands (89.7%). These autonomous communities also had a high rate of coincidence between the responses of participants and commissioners (83.3%, 85.0%, and 89.7%, respectively). Of all the professionals, 60.7% responded correctly to this question, with Asturias, Balearic Islands and Navarre being the communities with the highest percentages of informed professionals (100%). Similarly, a large proportion of participants (69.6%) thought that there were no specific hospitalization units for patients with dual disorders, especially participants

who did not belong to any network (100%). By autonomous communities, Andalusia had the highest percentage of professionals (92.5%) who were unaware of the existence of such specific units, followed by Galicia (90.5%) and Basque Country (83.3%). The rates of coincidence with the responses of commissioners to this question in these communities were 92.5%, 90.5%, and 83.3% respectively. In total, 66.3% of professionals responded the same as the commissioners, Castile-La Mancha (28.0%), Navarre and Castile-Leon (40.0%), Madrid (40.7%), and Murcia (47.1%) being the communities with the lowest rates of coincidence. By contrast, professionals were more aware of the existence of specific detoxification units for patients with dual disorders in the overall sample (62.5%) and in most autonomous communities. The rate of coincidence between perceptions and reality was 63.2% in the overall sample and greater by communities, Rioja having 100% coincidence, followed by the Balearic Islands (81.8%) and Basque Country (80.6%). Overall, professionals were not very knowledgeable about the number of these units in existing in their respective areas (18.4% in the total sample). Awareness of the existence of acute psychiatric inpatient units was similar (for 52.7% of the total, there were no such units), with more ignorance in autonomous communities like Andalusia (74.2%) and Canarias (72.4%), and a low level of coincidence with the responses of commissioners for the overall sample (46.5%) and Andalusia (25.8%), in contrast with Rioja (100%) and the Canary Islands (72.4%). Most participants were unaware of the existence of subacute units (admission for 1-3 months) in their autonomous community (83.1%), and this was the situation in most autonomous communities. The rate of coincidence in knowledge about this topic was high in the overall sample (67.4%) and in different communities, with the exception of Murcia and Castile-La Mancha. Regarding acute units, the professionals generally underestimated the number of units available in their autonomous communities (mean of 4.3 units in reality compared to a mean of 1.6 units perceived).

Overall, 65.8% of the participants thought that there was a lack of intermediate resources (outpatient), with even higher percentages thinking this in Madrid (74.0%), Catalonia (73.2%), Canary Islands (71.4%), and the Community of Valencia (70.6%). The rate of coincidence between participants and commissioners was high (73.2% and 70.6%, respectively) in Catalonia and the Community of Valencia, but not in Madrid and the Canary Islands (26.0% and 28.6%, respectively). The rate of coincidence on this topic was 48.9% in the overall sample, with major differences between communities. Overall, the professionals underestimated the number of acute units available in each community (28.5% in reality versus 2.97% perceived). Regarding the availability of day hospitals, most participants (82.8%) thought they were unavailable, as was the case of the professionals in all the autonomous communities (Figure 3A). The same tenden-



**Figure 2** Perception and actual knowledge of professionals regarding the specific resources available for patients with dual disorders. A) Percentage of participants who deemed it necessary to have specific resources for patients with dual disorders. B) Changes and/or rotation of the professionals employed in each autonomous community

cy was observed for dedicated day centers, although the percentages were lower (78.5% overall) (Figure 3B). The rate of coincidence between professionals and commissioners regarding both types of center was relatively high (59.0% for day hospitals and 57.9% for day centers), with significant differences between communities (Figures 3C and 3D). In both cases, the professionals underestimated the number of units (7.5 vs 1.3 for day hospitals and 9.0 vs 2.0 for day centers).

Most professionals thought, overall (88.4%) and by autonomous community, that there were no specific workshops for patients with dual disorders. This opinion was also held with regard to reemployment centers, with most professionals (83.3%), overall and in different autonomous communities, unaware of their existence. The rate of coincidence between the perceptions of professionals and knowledge of commissioners regarding the availability of specific

workshops was high, both overall (73.1%) and in the different autonomous communities (Figure 4A). In the case of reemployment centers, the perceptions of 59.3% of the respondents coincided with the knowledge of commissioners, particularly in Valencia (94.1%) and Asturias (91.7%) (Figure 4B). Generally speaking, the professionals surveyed underestimated the number of these resources (5.3 vs 2.14). Finally, regarding the availability of therapeutic communities that accept patients with dual disorders, the opinions recorded were diverse. Overall, 58.1% of professionals were unaware of the existence of therapeutic communities, with the highest lack of awareness of the existence of this resource existing in Valencia (66.7%), Madrid (68.3%) and Catalonia (73.2%), and the lowest in Galicia (39.0%) and Basque Country (38.2%). The rate of coincidence between the awareness of professionals and the knowledge of commissioners regarding this resource was half that of the overall sample (43.8%) and by autonomous communities. Professionals also

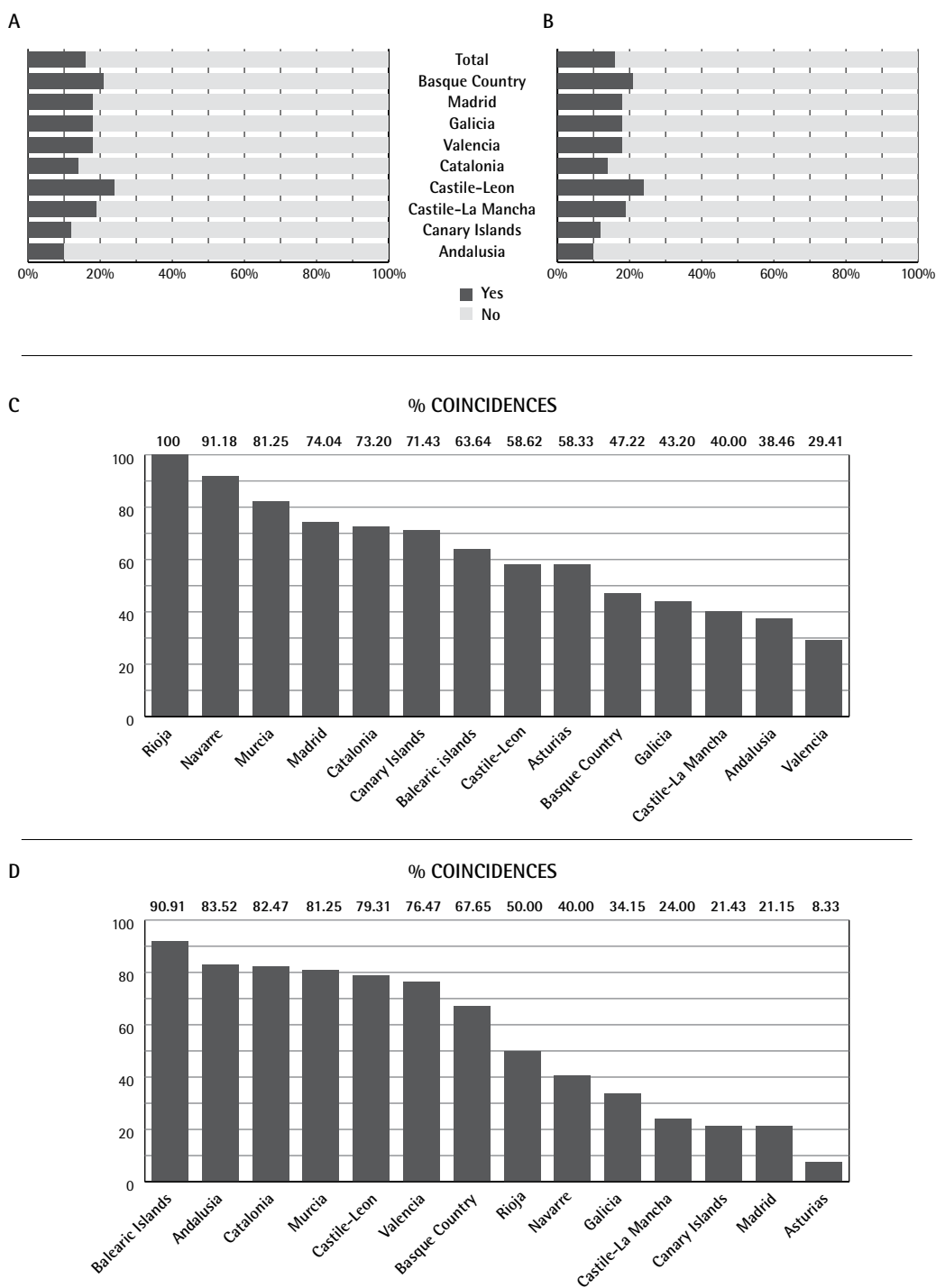


Figure 3

Perception and actual knowledge of professionals regarding the specific resources available for patients with dual disorders. A) Percentage of participants who thought that there were no day hospitals for patients with dual disorders. B) Percentage of participants who thought that there were no day centers available for patients with dual disorders. C) Level of knowledge about the existence of day hospitals for patients with dual disorders. D) Level of knowledge about the existence of day centers for patients with dual disorders.

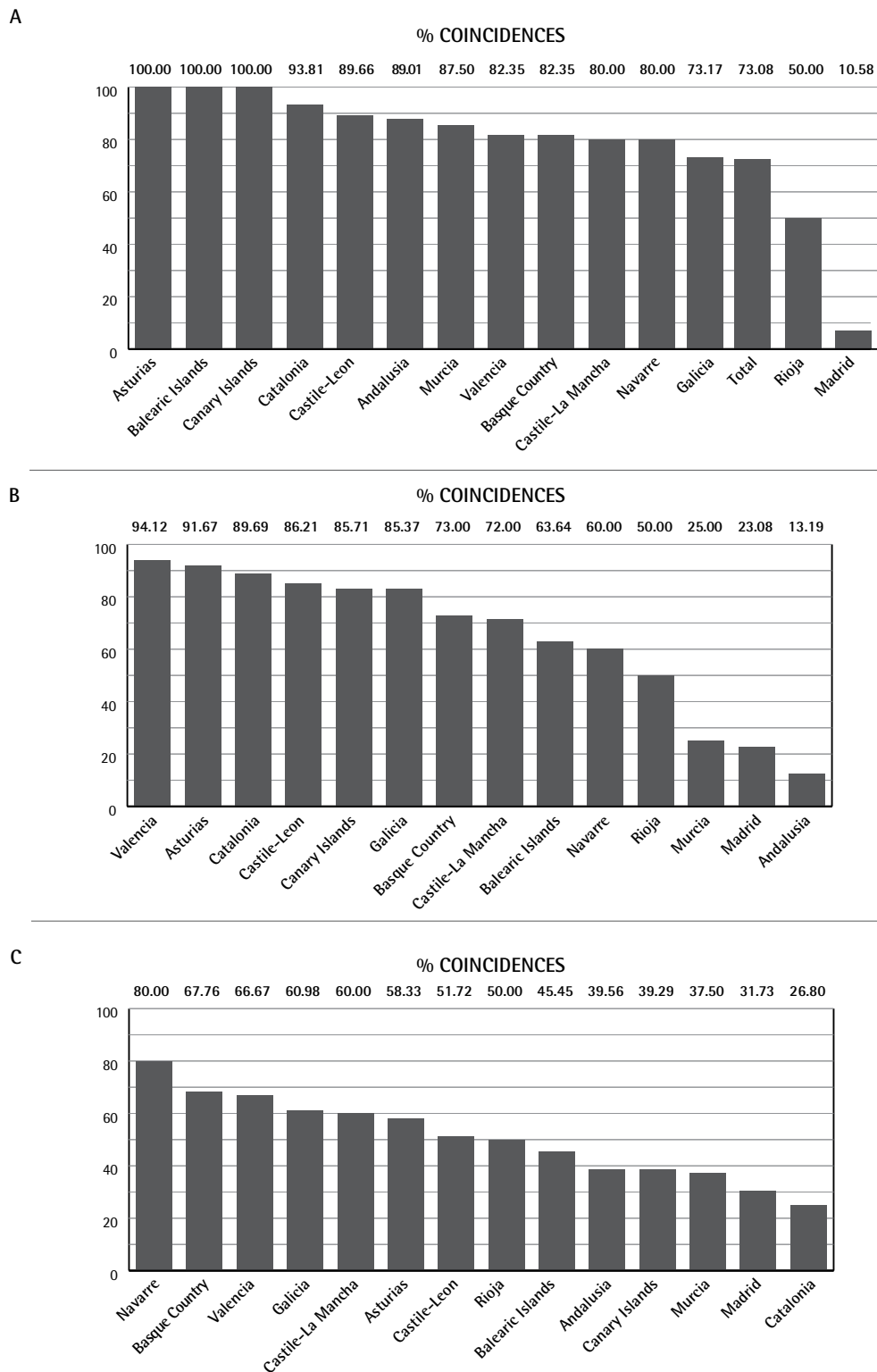


Figure 4

Perception and actual knowledge of professionals regarding the specific resources available for patients with dual disorders. A) Level of knowledge about the existence of specific workshops for patients with dual disorders. B) Level of knowledge about the existence of re-employment centers for patients with dual disorders. C) Level of knowledge about the existence of therapeutic communities for patients with dual disorders.

tended to underestimate the number of therapeutic communities (7.2 vs 2.4). There were no relevant differences in the rate of coincidence between the perceptions of professionals and knowledge of commissioners in relation to the network they belonged to, indicating that membership in an integrated network does not influence the degree of knowledge about the resources available for dual disorders. Professionals from non-integrated networks had more knowledge about the availability of specific intermediate resources than professionals from integrated networks (20.0% vs 6.5%,  $p=0.00034$ ). Finally, no significant differences were detected in the knowledge of resources in relation to professional specialty (psychologists or psychiatrists compared to other professionals).

## CONCLUSIONS

This study has provided information about the perceptions and knowledge of specific resources available for the care of patients with dual disorders among professionals in different Spanish autonomous communities. The opinions and perceptions of healthcare professionals are a key to the planning and evaluation of health needs by health authorities.<sup>22,23,28-30</sup> In Spain, there have been few studies evaluating the perceptions of professionals working with patients with dual disorders.<sup>22-24</sup>

No major differences regarding the need for specific resources for patients with dual disorders were detected in relation to the autonomous communities where professionals work, confirming the overall results regarding the need for specific resources for dual pathology in Spain.<sup>22,23</sup> No differences were detected in relation to professional specialty or origin, and available resources were also generally underestimated by professionals in all the autonomous communities. However, notable differences were observed in the perception, knowledge, and preferences for integration model of the professionals in different autonomous communities, which may reflect the diversity of existing policies and health strategies at the level of the autonomous communities.<sup>31</sup> Although a low level of knowledge of the availability of resources such as therapeutic communities, acute psychiatric inpatient units, intermediate outpatient resource, day centers and hospitals, and reemployment centers, no consistent trend was observed in any community. The communities with the highest rate of coincidence between the perception of professionals and knowledge of commissioners varied depending on the resource in question.

It is known that aspects such as adherence to care in therapeutic centers and compliance with treatment by patients with mental disorders are key factors associated with patient outcome.<sup>32,33</sup> However, in patients with dual disorders, the degree of adherence to care in therapeutic resources is

initially low.<sup>34</sup> Thus, promoting knowledge of the resources available may favor the likelihood that clinicians will choose the most appropriate resources for the patient's developmental stage, which could help improve outcomes. Consequently, the results of this study may be useful for both clinicians and health system managers. The task of clinicians is facilitated by increasing awareness of the resources available in their respective autonomous communities and of the differences between their community and neighboring communities, which would make it easier to choose among the existing resources and to propose those that really are needed. For the healthcare managers responsible for planning and implementing healthcare strategies for patients with dual disorders, this could be the start of a debate on the need for harmonization in this area. Differences in the vision and knowledge of professionals may be related to intrinsic differences between communities, professional training, or within the healthcare system. In addition, there may also be important differences between autonomous communities in terms of prevalent psychological and psychiatric morbidity, the use of psychotropic drugs, social support, and personal perceptions of health according to a cross-sectional study of nearly 30,000 Spanish citizens.<sup>35</sup> In any case, the differences detected in the available therapeutic resources, such as dedicated detoxification centers, day centers, workshops, therapeutic communities, and the underestimation of available resources in most communities, suggest that it is necessary to create unified registries of registries, accessible nationwide. This opens a debate on the need for a national plan to care for patients with dual disorders, or the need for alternative strategies, such as a white paper on the management of dual disorders in Spain, as has been proposed for the management of other diseases countrywide in Europe.<sup>36,37</sup> The development of professional training and information campaigns on the resources available in different autonomous communities could also be proposed, since there is a lack of knowledge about existing resources in all the autonomous communities. The knowledge of professionals regarding resources in other autonomous communities was not studied, but it is likely to be similar to or worse than the knowledge they have about the resources in the autonomous communities where they are working.

The strengths of this study were the large, representative sample of professionals who care for patients with dual disorders from all the autonomous communities, who represent a broad range of professional specialties. Limitations that merit note were the lack of objective data from three commissioners. In addition, the professionals who completed the survey could possibly be more motivated about the treatment of patients with dual disorders, which might have resulted in bias.

It can be concluded that, based on the variations among the professionals in different autonomous communities in their opinions and actual knowledge of the specific resources



available for patients with dual disorders, actions are required, such as a unified national registry, a white paper, or a national program for patients with dual disorders.

#### ACKNOWLEDGMENTS

This study was sponsored by BrainPharma SA, which pertains to Grupo Ferrer SA. It was supported by the "Plan Nacional sobre Drogas [National Plan on Drugs]" (Government of Spain).

The authors wish to thank Dr. Anna Campuzano of BrainPharma SA for her collaboration, and Grupo Saned SA, for its technical secretarial and statistical analysis services.

#### CONFLICTS OF INTEREST

None.

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