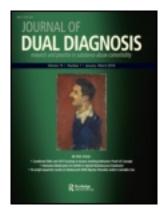
This article was downloaded by: [Hospital Universitari Vall d'Hebron], [Dr Carlos Roncero]

On: 08 May 2014, At: 23:58

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House,

37-41 Mortimer Street, London W1T 3JH, UK



Journal of Dual Diagnosis

Publication details, including instructions for authors and subscription information: $\underline{ \text{http://www.tandfonline.com/loi/wjdd20} }$

Dual Diagnosis Resource Needs in Spain: A National Survey of Professionals

Nestor Szerman MD^{ab}, Pablo Vega MD^{bc}, Lara Grau-López MD^{bde}, Carmen Barral MD^{bde}, Ignacio Basurte-Villamor MD PhD^{ab}, Beatriz Mesías MD^{bc}, Laia Rodríguez-Cintas MA^{bd}, José Martínez-Raga MD PhD^{bf}, Miguel Casas MD PhD^{beg} & Carlos Roncero MD PhD^{bdeg}

Published online: 06 May 2014.

To cite this article: Nestor Szerman MD, Pablo Vega MD, Lara Grau-López MD, Carmen Barral MD, Ignacio Basurte-Villamor MD PhD, Beatriz Mesías MD, Laia Rodríguez-Cintas MA, José Martínez-Raga MD PhD, Miguel Casas MD PhD & Carlos Roncero MD PhD (2014) Dual Diagnosis Resource Needs in Spain: A National Survey of Professionals, Journal of Dual Diagnosis, 10:2, 84-90, DOI: 10.1080/15504263.2014.906195

To link to this article: http://dx.doi.org/10.1080/15504263.2014.906195

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at http://www.tandfonline.com/page/terms-and-conditions

^a Departament of Psychiatry Hospital Universitario Gregorio Marañon, Madrid, Spain

^b Sociedad Española de Patologia Dual, Spain

^c Instituto de Adicciones, Madrid, Spain

^d Outpatient Drug Clinic, Department of Psychiatry, Vall d'Hebron University Hospital, Public Health Agency, Barcelona (ASPB), CIBERSAM, Barcelona, Spain

^e Department of Psychiatry, Vall d'Hebron University Hospital. CIBERSAM, Barcelona, Spain

f Department of Psychiatry and Medical Psychology, Universidad de Valencia, Hospital Universitario Dr. Peset., Valencia, Spain

⁹ Department of Psychiatry and Legal Medicine, Universitat Autònoma de Barcelona, Barcelona, Spain

Copyright © Taylor & Francis Group, LLC ISSN: 1550-4263 print / 1550-4271 online DOI: 10.1080/15504263.2014.906195



SERVICES & POLICY

Dual Diagnosis Resource Needs in Spain: A National Survey of Professionals

Nestor Szerman, MD, ^{1,2} Pablo Vega, MD, ^{2,3} Lara Grau-López, MD, ^{2,4,5} Carmen Barral, MD, ^{2,4,5} Ignacio Basurte-Villamor, MD, PhD, ^{1,2} Beatriz Mesías, MD, ^{2,3} Laia Rodríguez-Cintas, MA, ^{2,4} José Martínez-Raga, MD, PhD, ^{2,6} Miguel Casas, MD, PhD, ^{2,5,7} and Carlos Roncero, MD, PhD^{2,4,5,7}

Objective: Since provision of integrated services for patients with dual pathology or dual disorders (coexistence of an addictive disorder and another mental health disorder) is an important challenge in mental health, this study assessed health care professionals' perceptions and knowledge of the current state of specific resources for patients with dual pathology in Spain. **Methods:** We conducted a national survey of health care professionals seeing patients with dual pathology in treatment facilities throughout Spain. Participants completed a specific online questionnaire about the needs of and available resources for patients with dual pathology. **Results:** A total of 659 professionals, mostly psychologists (n = 286, 43.4%) or psychiatrists (n = 217, 32.9%), participated in the study. Nearly all participants who responded to these items reported that specific resources for dual pathology were needed (n = 592/635, 93.2%); 76.7% (n = 487)identified intermediate resources, 68.8% (n = 437) acute detoxification units, and 64.6% (n = 410) medium-stay rehabilitation units as particularly necessary. In the opinion of 54.0% of respondents (n = 343), integrated mental health and addiction treatment services were available. Of the participants who answered these items, only a small proportion (n = 162/605, 26.8%) reported that there were appropriate outpatient programs for dual pathology, 30.4% (n = 184/605) specific hospitalization units, 16.9% (n = 99/587) subacute inpatient units, 34.2% (n = 201/587) outpatient intermediate resources, 15.5% (n = 91/587) day hospitals, and 21.5% (n = 126/587) day centers. Conversely, 62.5% (n = 378/587) of participants reported a greater presence of specific detoxification/withdrawal units, 47.3% (n = 286/587) psychiatric acute admission units, and 41.9% (n = 246/587) therapeutic communities. In the professionals' opinion, the presence of specialty programs was low; 11.6% of respondents (n = 68/587) reported that vocational programs and 16.7% (n = 98/587) reported that occupational rehabilitation programs were available. Employee turnover was common: 51.9% of respondents (n = 314/605) stated that employee turnover was occasional to frequent. Conclusions: According to the professionals surveyed, specific health care resources for the management of dual pathology are currently insufficient, underlining the need for additional efforts and strategies for treating individuals with comorbid disorders. (Journal of Dual Diagnosis, 10:84–90, 2014)

Keywords dual pathology, dual disorders, dual diagnosis, addictive disorder, substance use disorder, mental health disorder, health care professionals, professionals' perception, resources

Over the last few decades, clinicians, researchers, economists, and policy makers have paid increasing attention to the challenges of identifying and implementing adequate management of co-occurring disorders/dual pathology. Dual pathology or dual disorders are terms used to define the presence of an addictive disorder and another mental health disorder in an individual, within a specific time frame (Volkow, 2007, Casas, Arranz, & Roncero, 2000; Szerman et al., 2013; World Health Organization, 1994). A number of other terms have been used to refer to the vast population of patients with both an addictive disorder and another mental illness, including dual diagnosis, mentally ill chemical abusers, chemically addicted mentally ill, co-occurring disorder, or comorbid disorder (Green & Brown, 2006; Banerjee, Clancy, & Crome, 2002; Szerman et al., 2013).

¹Departament of Psychiatry Hospital Universitario Gregorio Marañon, Madrid, Spain

²Sociedad Española de Patologia Dual, Spain

³Instituto de Adicciones, Madrid, Spain

⁴Outpatient Drug Clinic, Department of Psychiatry, Vall d'Hebron University Hospital, Public Health Agency, Barcelona (ASPB), CIBERSAM, Barcelona, Spain

⁵Department of Psychiatry, Vall d'Hebron University Hospital. CIBER-SAM, Barcelona, Spain

⁶Department of Psychiatry and Medical Psychology, Universidad de Valencia, Hospital Universitario Dr. Peset., Valencia, Spain

⁷Department of Psychiatry and Legal Medicine, Universitat Autònoma de Barcelona, Barcelona, Spain

Address correspondence to Carlos Roncero, MD, PhD, Department of Psychiatry, Vall d'Hebron University Hospital Passeig Vall d'Hebron, 119-129, 08035 Barcelona, Spain. E-mail: croncero@vhebron.net

Various factors may contribute to the particularly strong association between lifetime diagnoses of addictive disorders and other mental disorders. This relationship is complex, since these concurrent disorders share common brain substrates and factors (Volkow, 2001).

The high prevalence of dual pathology (above 50%) has been well documented in clinical and epidemiological studies (Regier et al., 1990; Kessler et al., 1996; Weaver et al., 2003; Kessler, 2004; Adamson, Todd, Sellman, Huriwai, & Porter, 2006; Rush & Koegl, 2008; Swendsen et al., 2010; Pulay et al., 2010; Roncero, Fuste et al., 2011; Hasin et al., 2011; Szerman et al., 2012; Szerman et al., 2013). Four major epidemiological surveys have examined the co-occurrence of substance use disorders and other psychiatric disorders in the United States (the Epidemiological Catchment Area study or ECA, Regier et al., 1990; the National Comorbidity Survey or NCS, Kessler et al., 1994; Kessler et al., 1996; the National Comorbidity Survey Replication or NCS-R, Kessler, Chiu, Demler, Merikangas, & Walters, 2005; Gadermann, Alonso, Vilagut, Zaslavsky, & Kessler, 2012; and the National Epidemiological Survey on Alcohol and Related Conditions or NESARC, Lev-Ran, Imtiaz, Rehm, & Le Foll, 2013). These different epidemiological studies coincide in suggesting a reciprocal contribution to the development of the other disorder in dual diagnosis (Kessler, 2004; Compton, Conway, Stinson, Colliver,& Grant, 2005; Volkow, 2007). A strong association between lifetime diagnosis of any mental illness and rates of transition from mere substance use to a substance use disorder also exists (Lev-Ran et al., 2013).

Provision of services for patients with dual pathology currently represents an important challenge. Failure to detect and adequately treat co-occurring syndromes can jeopardize a patient's chances of success (Kessler et al., 1994). In addition to the shortage of specialist treatment resources for patients with dual diagnosis, in many countries there is duplicity of services for addiction and mental health disorders (Weaver et al., 2003; Baldacchino, 2007). Traditionally, mental health and substance abuse services have been provided sequentially or in parallel. This commonly resulted in low adherence of patients with dual disorders to both treatment resources and an inadequate management of the common interrelated problems of the comorbidity (Farren, Hill, & Weiss, 2012; Pettinati, O'Brien, & Dundon, 2013).

In this context, a number of strategies have been implemented to combine and/or integrate mental health and addiction treatment resources (Torrens, 2008; Hawkins, 2009; Farren et al., 2012). Several reports have identified different psychosocial and pharmacological treatments for these patients (Brunette & Mueser, 2006; Torrens, 2008; Hawkins, 2009; Thylstrup & Johansen, 2009; Pettinati et al., 2013; Martinez-Raga, Knecht, de Alvaro, Szerman, & Ruiz, 2013), and only recently have clinical guidelines been issued to integrate both treatment approaches (Hintz & Mann, 2006; Zaleski et al., 2006; Lingford-Hughes, Welch, Peters, Nutt, & British Association for Psychopharmacology, Expert Review-

ers Group, 2012). The perceptions of professionals may be an important factor in the improvement of patients' mental health and substance use treatment (Olivares et al., 2013). Recent studies also highlight the importance of professionals' perceptions on the current management of patients with dual diagnosis, such as the perception that dual pathology is usually severe and that treatment adherence influences outcome (Roncero et al., 2013).

Although specific resources are currently being created for patients with dual pathology in Spain (such as inpatient and outpatient units, or day centers), few studies have assessed the implementation of these strategies for patients with dual diagnosis, particularly those based on professional opinion. This national survey was conducted to assess professionals' perceptions and knowledge of the current state of the implementation of specific resources for patients with dual pathology in Spain, based on an online survey of the health care professionals involved. The results obtained should help raise awareness of the need to implement specific strategies for the management of patients with dual pathology.

METHODS

Between February and May 2011, we conducted a national survey of 659 health care professionals treating dual pathology in patients in various treatment settings throughout Spain in order to explore their perception of the available health care resources and the needs of patients with dual pathology.

A group of experts in dual diagnosis from different clinical and academic origins designed a questionnaire specifically for this study (available on www.sepd.es). The questionnaire included information on the professional background of the participant (location, academic and specialist degree, research society and treatment network to which they were attached), percentage of patients with dual pathology seen in their units, current available resources for dual pathology (such as outpatient units, inpatient units, day centers, occupational and vocational rehabilitation programs or therapeutic communities) and resources that, in their opinion, should be made available for patients with dual disorders. Their opinion on the integrated model was also solicited.

All the members of the "Spanish Society of Dual Disorders" scientific association (Sociedad Española de Patología Dual) and the professionals in the society's database (more than 2,000) were sent an e-mail inviting them to complete the questionnaire. To reach the greatest possible number of participants, the message was sent three times. Moreover, the questionnaire was available to all the professionals working in the mental health or addiction field in Spain who accessed the Spanish Society of Dual Disorders website.

The study and procedures, approved by the Ethics Committee of Hospital de la Vall d'Hebrón (Barcelona, Spain), complied with the ethical standards laid down in the Helsinki

N. Szerman et al.

Declaration, as revised in 2000. After reading a complete explanation of the study, professionals consented to participate voluntarily without receiving any remuneration by completing the survey. Those who did not wish to consent simply exited without completing the survey.

In the statistical analysis, frequency tables and percentages were obtained for categorical variables while measures of central tendency and dispersion were calculated for continuous variables (mean, standard deviation, and range).

RESULTS

A total of 659 professionals across Spain working with patients with dual pathology participated in the study. The majority were of Spanish origin (n = 625), while others were from Latin America (n = 22), other European countries (n = 8), or a small number of other places (n = 4). The sample included 362 women (54.9%) and professionals from 553 centers and 235 cities across Spain. Respondents were not concentrated in any one area or center, so representation was fairly distributed (95.9% of centers provided only one or two participants). Most of the participants were psychologists (43.40%) and psychiatrists (32.93%), followed by general practitioners (14.57%) and physicians with other specialist degrees (7.59%), while a small percentage of professionals had two or more specialties (See Table 1). Participants did not always respond to every survey item, and this is indicated whenever the sample size is not the full 659.

A total of 93.2% of responding study participants (n = 592/635) reported that specific resources for dual pathology were necessary, with similar percentages for the various subgroups of participants based on their network affiliation. Among the resources identified as necessary, 76.7% of respondents (n = 487/635) preferred intermediate resources,

TABLE 1 Characteristics of Survey Respondents (N = 659)

Gender	
Gender	
Female	362 (54.9%)
Male	297 (45.1%)
Country of Origin	
Spain	625 (94.8%)
Latin American	22 (3.3%)
Other European	8 (1.2%)
Other	4 (0.6%)
Specialty Area	
Psychologist	286 (43.3%)
Psychiatrist	217 (32.9%)
General Physician	96 (14.6%)
Other Physician	50 (7.6)
Dual Specialties	10 (1.5%)

followed by 68.8% (n = 437/635) indicating acute detoxification units and 64.6% (n = 410/635) indicating medium-stay rehabilitation units.

According to 54.0% of respondents (n = 343/635), integration exists between mental health and addiction networks, and 49.6% of them (n = 170/343) considered integration to be very good or good. Overall, 65.2% of participants (n = 414/635) reported that the specific resources available for dual pathology were public, while 39.1% (n = 248/635) said resources were semiprivate and 27.6% (n = 175/635) said available resources were completely private. About half of the participants were partially aware of the available resources (n = 340/635, 53.5%), while 29.6% (n = 188/635) of the sample reported being fully aware of them.

Professionals working in these specific resources for patients with dual diagnosis included general practitioners, psychiatrists, psychologists, nurses, and social workers. Across all three kinds of resources (mental health, addiction, and integrated), staff turnover was quite high. Less than half of respondents indicated low turnover (n=291/605, 48.1%), while 39.3% (n=238/605) reported occasional turnover and 12.6% (n=76/605) indicated frequent employee turnover. The highest level of employee changes or turnover occurred in the mental health resources. More than a half of participants (n=340/605, 56.2%) considered that access of patients to the individual resources was direct, while 43.8% (n=265/605) considered that patients acceded to resources for dual pathology through other resources.

Overall, 26.8% of respondents (n = 162/605) reported that there were outpatient programs for dual pathology, while 30.4% (n = 184/605) stated there were specific hospitalization units (Figure 1). Conversely, 62.5% of participants (n =378/605) reported a greater availability of detoxification units accepting patients with dual disorders, with relevant differences depending on the area (76.4% in drug addiction and 47.7% in mental health). Approximately half of the participants (n = 286/605, 47.3%), stated that psychiatric acute admission units were available for patients with dual diagnosis. Subacute inpatient units (1- to 3-month stays) for patients with dual pathology were less common (reported by 16.9% of participants, n = 99/587, each participant reported the existence of a mean of 1.04 \pm 1.54 units in his/her area). Approximately a third of participants (n = 201/587, 34.2%) stated that outpatient intermediate resources were available, with a mean of 1.60 \pm 2.74 units considered available per surveyed professional in his/her area. The existence of a day hospital for patients with dual pathology was reported by 15.5% (n = 91/587) of respondents (with a mean of 0.69 \pm 1.28 hospitals per surveyed professional), while day centers for dual pathology were reported by 21.5% of respondents (n =126/587), with a mean of 0.75 \pm 1.22 centers per surveyed professional.

Only 11.6% of participants reported availability of specific vocational programs (n=68/587, with a mean of 1.59 \pm 7.27 programs considered available per participant in her/his

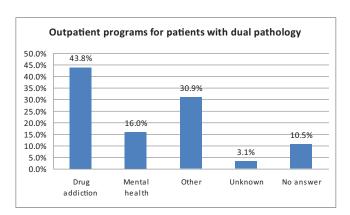


FIGURE 1 Outpatient programs for patients with dual pathology. (Color figure available online).

area) and the number of respondents who had knowledge of occupational rehabilitation centers (n=98/587, 16.7%, mean of 0.70 ± 1.44 units/professional/area) was also low. Participants who reported therapeutic communities accepting patients with dual disorders was higher (n=246/587, 41.9%, mean of 0.88 ± 1.01 units/professional/area).

In the opinion of three-quarters or more of the surveyed professionals, there were four types of resources most needed for patients with dual pathology. Eighty-nine percent (n = 462/518) identified need for specific outpatient programs, 87.3% (n = 452/518) said detoxification units, 85.3% (n = 442/518) indicated outpatient intermediate resources, and 74.5% (n = 386/518) identified specific hospitalization units. Similar perceptions of treatment resource needs were reported by professionals from both the drug addiction and mental health networks.

DISCUSSION

To our knowledge, this is the first national survey of professionals regarding the availability of specific resources for the management of patients with dual pathology in Spain. Results from the online survey revealed that, while professionals are aware of the need for specific treatment resources for these patients, available integrated health care resources are still scant.

Professionals' perceptions have helped to understand the causes and consequences of treatment nonadherence (Olivares et al., 2013). Recent studies also highlight the importance of the professionals' perceptions on the management of patients with dual diagnosis because they are the ones who actually prescribe and apply the different treatments (Oller-Canet et al., 2011). They detect when a patient is noncompliant (Velligan et al., 2010) and can provide explanations that may help to improve the treatment and management of these patients (Roncero et al., 2013).

Professionals support the need for implementing integrated resources for the management dual diagnosis, taking into account the high prevalence, worse prognosis and outcome, and higher rates of morbidity and mortality associated with this condition (Grant et al., 2004; Roncero, Fuste et al., 2011; Roncero, Barral et al., 2011; Swendsen et al., 2010; Szerman, 2013; Daigre et al., 2013). Specialized approaches for dual pathology may address the high incidence of polypharmacy in these patients (Grau-López et al., 2014), although, traditionally mental health and substance misuse services have worked sequentially or in parallel in treating patients with dual diagnosis (Brunette & Mueser, 2006; Roncero, Barral et al., 2011). In our study, only 54.0% of respondents were aware of available integrated resources.

While professionals are increasingly more aware of this condition and the need for integrated strategies, integration is only partially implemented and focuses primarily on combined administration of medications and psychotherapy (Green, 2006; Hawkins, 2009; Farren et al., 2012). Furthermore, evidenced-based data on the current health care resources available for the effective management of patients with dual disorders are still scarce. However, currently available scientific evidence supports the notion that co-occurring disorders are ideally best treated within an integrated care setting (Hawkins, 2009; Farren et al., 2012; Pettinati et al., 2013).

Among the different needs detected in this study, we also noted a high degree of job instability and employee turnover among professionals working in integrated treatment settings, preventing them from achieving the right training and experience for managing patients with dual pathology. The high turnover rate may be influenced by burnout (Pedrero, Puerta, Lagares, Sáez, & García, 2004; De las Cuevas et al., 2003) and possibly by the nature of the integrated services and the policies and health care planning of these services, which belong either to the addiction treatment network or to mental health services, underlying the high degree of job instability and employee turnover.

Indeed, in the absence of coherent long-term planning by health care managers and policy makers, generally highly motivated health care professionals working in such integrated resources often seek a more stable job placement in face of the reorganization of services and the prioritization of other treatment resources.

In our study, we also noted a lower frequency of turnover in professionals belonging to both networks or to unified networks (drug addiction plus mental health), thus supporting the benefits of integrating both areas for the most optimal clinical practice.

In this study, outpatient treatment programs, as well as outpatient intermediate resources, were purported to be scarce. Outpatient strategies have been proposed as a promising system for the global management of patients with dual pathology, particularly in young patients (Hintz & Mann, 2006; Hawkins, 2009). Proximity and contact with the health care and neighborhood communities are key elements that these patients can find in outpatient resources and that can, in some cases, help

N. Szerman et al.

avoid further inpatient interventions. Similarly, we also noted a low presence of specific ancillary interventions, such as vocational or occupational programs.

We also noted the scarcity of hospital inpatient units, specifically addressing the needs of patients with dual diagnosis. Based on data on the prevalence of dual pathology reported in previous observational studies (Roncero, Fuste et al., 2011; Arias et al., 2013a, 2013b, 2013c), these specific resources are clearly currently insufficient.

Overall, our results highlight the need for significant efforts to implement specific strategies and resources in the management of dual pathology in Spain. To address this situation, we propose that a National Health Plan on dual pathology should be implemented in the near future by the Spanish health authorities, as has been done in other health areas. We also suggest that this issue should be studied from an international perspective that includes the experience of other countries and populations. Although the implementation of integrated and specialized strategies for dual pathology has not been fully evaluated to date, the data presented here strongly support the need to develop integrated services for patients with dual diagnosis.

The strengths of this study include the large number of professionals surveyed, the high number of responses by these professionals, and the suitability of the online questionnaires specially designed for the study. There is no official Spanish census of professionals who work in drug addiction (Casas et al., 2009) or in facilities for dual diagnosis (Roncero et al., 2013), so there is no way to determine exact representation of our sample to the larger population of professionals. There are an estimated 900 to 1,000 medical professionals working in the drug addiction network and about 4,500 to 5,000 psychiatrists in Spain, including those in training (Sociedad Española de Psiquiatría, www.sep.es). However, it is unknown how many work in facilities that see patients with dual diagnosis. Therefore, we estimate that between 5% and 8% of all the physicians working in the Spanish mental health or addiction network were recruited. Another point that should be mentioned is that no differences depending on the background of the professionals (type of job or network to which they were attached) were observed.

Limitations of this study are primarily related to generalizability. It is possible that only self-selected and motivated professionals responded to the survey. Also, the potential bias of over-representation of participants from a given treatment center could not be controlled. Therefore, our results may not be representative of the opinions of all professionals who see patients with dual disorders.

In the current context in which providing services for patients with dual pathology represents an important and continued challenge, our results show that professionals strongly believe specific healthcare resources for dual pathology are considerably lacking. Thus, considerable support for the need for additional efforts and strategies for treating individuals with comorbid disorders is evident.

ACKNOWLEDGMENTS

The study was sponsored by an unrestricted educational grant from BrainPharma, S.A., a subsidiary of Grupo Ferrer, S.A. The authors would like to thank Anna Campuzano, PhD, of BrainPharma, S.A., for technical support for the study development, Núria Piqué for her writing assistance and Grupo Saned, S.A., for technical secretarial services and for the statistical analysis. This study was performed under the auspices of the Spanish "Plan Nacional sobre Drogas." The abstract of this study was a poster presentation at the III International Congress on Dual Pathology/disorders (Barcelona, Spain, October 2013).

DISCLOSURES

All authors report no financial relationships with commercial interests

FUNDING

The study has been sponsored by an unrestricted educational grant of BrainPharma, S.A., a subsidiary of Grupo Ferrer, S.A.

REFERENCES

- Adamson, S. J., Todd, F. C., Sellman, J. D., Huriwai, T., & Porter J. (2006). Co-existing psychiatric disorders in a New Zealand outpatients alcohol and other drug clinical population. *Australian and New Zealand Journal of Psychiatry*, 40(2), 164–170. doi:10.1080/j.1440-1614.2006. 01764.x
- Arias, F., Szerman, N., Vega, P., Mesias, B., Basurte, I., Morant, C., ... Babin, F. (2013a). Abuse or dependence on cannabis and other psychiatric disorders. Madrid study on dual pathology prevalence. Actas Espanolas de Psiquiatria, 41(2), 122–129. doi:10.1016/j.rpsm.2012.09.002
- Arias, F., Szerman, N., Vega, P., Mesias, B., Basurte, I., Morant, C., ... Babin, F. (2013b). Alcohol abuse or dependence and other psychiatric disorders. Madrid study on the prevalence of dual pathology, Mental Health and Substance Use. Actas Espanolas de Psiquiatria, 41(2), 123– 130. doi:10.1080/17523281.2012.748674
- Arias, F., Szerman, N., Vega, P., Mesias, B., Basurte, I., Morant, C., ... Babín, F. (2013c). [Madrid study on the prevalence and characteristics of outpatients with dual pathology in community mental health and substance misuse services]. Adicciones, 25(1), 118–127.
- Baldacchino, A. (2007). Co-morbid substance misuse and mental health problems: Policy and practice in Scotland. *American Journal on Addictions*, 16(3), 147–159.
- Banerjee, S., Clancy, C., & Crome, I. (2002). Co-existing problems of mental disorder and substance misuse (dual diagnosis): An information manual. London: Royal College of Psychiatrists Research Unit.
- Brunette, M. F., & Mueser, K. T. (2006). Psychosocial interventions for the long-term management of patients with severe mental illness and cooccurring substance use disorder. *Journal of Clinical Psychiatry*, 67(7), 10–17.
- Casas, M., Arranz, F. J., & Roncero, C. (2009). Grupo de estudio sobre intervenciones clínicas en conductas adictivas: GICCA: Documento de conclusiones. Barcelona: Drug Farma.

- Compton, W. M., Conway, K. P., Stinson, F. S., Colliver, J. D., & Grant, B. F. (2005). Prevalence, correlates, and comorbidity of DSM-IV antisocial personality syndromes and alcohol and specific drug use disorders in the United States: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Journal of Clinical Psychiatry*, 66(6), 677–685.
- Daigre, C., Roncero, C., Grau-López, L., Martínez-Luna, N., Prat, G., Valero, S., ... Casas, M. (2013). Attention deficit hyperactivity disorder in cocaine-dependent adults: A psychiatric comorbidity analysis. *American Journal on Addictions*, 22(5), 466–473. doi:10.1111/j.1521-0391.2013.12047.x
- De las Cuevas, C. (2003). [Burnout in addiction treatment professionals]. Transtornos Adictivos, 5(2), 107–113.
- Farren, C. K., Hill, K. P., & Weiss, R. D. (2012). Bipolar disorder and alcohol use disorder: A review. Current Psychiatry Reports, 14(6), 659–666. doi:10.1007/s11920-012-0320-9
- Gadermann, A. M., Alonso, J., Vilagut, G., Zaslavsky, A. M., & Kessler, R. C. (2012). Comorbidity and disease burden in the National Comorbidity Survey Replication (NCS-R). *Depression and Anxiety*, 29(9), 797–806. doi:10.1002/da.21924
- Grant, B. F., Stinson, F. S., Dawson, D. A., Chou, S. P., Dufour, M. C., Compton, W., ... Kaplan, K. (2004). Prevalence and co-occurrence of substance use disorders and independent mood and anxiety disorders: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. Archives of General Psychiatry, 61(8), 807–816. doi:10.1001/archpsyc.61.8.807
- Grau-López, L., Roncero, C., Daigre, C., Miquel, L., Barral, C., Collazos, F., & Casas, M. (2014). Observation study of pharmacotherapy in a dual diagnosis program. *Journal of Addition Medicine*, 8(1), 74–75. doi:10.1097/ADM.0000000000000028
- Green, A. I. (2006). Treatment of schizophrenia and comorbid substance abuse: Pharmacologic approaches. *Journal of Clinical Psychiatry*, 67, 31– 35.
- Green, A. I., & Brown, E. S. (2006). Comorbid schizophrenia and substance abuse. *Journal of Clinical Psychiatry*, 67(9), e08.
- Hasin, D., Fenton, M. C., Skodol, A., Krueger, R., Keyes, K., Geier, T., . . . Grant, B. (2011). Personality disorders and the 3-year course of alcohol, drug, and nicotine use disorders. *Archives of General Psychiatry*, 68(11), 1158–1167. doi:10.1001/archgenpsychiatry.2011.78
- Hawkins, E. H. (2009). A tale of two systems: Co-occurring mental health and substance abuse disorders treatment for adolescents. *Annual Review of Psychology*, 60, 197–227. doi:10.1146/annurev.psych.60.110707.163456
- Hintz, T., & Mann, K. (2006). Co-occurring disorders: Policy and practice in Germany. *American Journal on Addictions*, 15(4), 261–267.
- Kessler, R. C. (2004). The epidemiology of dual diagnosis. *Biological Psychiatry*, *56*(10), 730–737. doi:10.1016/j.biopsych.2004.06.034
- Kessler, R. C., Chiu, W. T., Demler, O., Merikangas, K. R., & Walters, E. E. (2005). Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. Archives of General Psychiatry, 62(6), 617–627. doi:10.1001/archpsyc.62.6.617
- Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., Hughes, M., Eshleman, S., . . . Kendler, K. S. (1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States. Results from the National Comorbidity Survey. *Archives of General Psychiatry*, 51(1), 8–19.
- Kessler, R. C., Nelson, C. B., McGonagle, K. A., Edlund, M. J., Frank, R. G., & Leaf, P. J. (1996). The epidemiology of co-occurring addictive and mental disorders: Implications for prevention and service utilization. *American Journal of Orthopsychiatry*, 66(1), 17–31.
- Lev-Ran, S., Imtiaz, S., Rehm, J., & Le Foll, B. (2013). Exploring the association between lifetime prevalence of mental illness and transition from substance use to substance use disorders: Results from the National Epidemiologic Survey of Alcohol and Related Conditions (NESARC). American Journal on Addictions, 22(2), 93–98. doi:10.1111/j.1521-0391.2013.00304.x

- Lingford-Hughes, A. R., Welch, S., Peters, L., Nutt, D. J., & British Association for Psychopharmacology, Expert Reviewers Group. (2012). BAP updated guidelines: Evidence-based guidelines for the pharmacological management of substance abuse, harmful use, addiction and comorbidity: Recommendations from BAP. *Journal of Psychopharmacology*, 26(7), 899–952. doi:10.1177/0269881112444324
- Martinez-Raga, J., Knecht, C., de Alvaro, R., Szerman, N., & Ruiz, P. (2013).
 Addressing dual diagnosis patients suffering from attention-deficit hyperactivity disorders and comorbid substance use disorders: A review of treatment considerations. Addictive Disorders & Their Treatment, 12(4), 213–230.
- Olivares, J. M., Alptekin, K., Azorin, J. M., Cañas, F., Dubois, V., Emsley, R., ... Schreiner, A. (2013). Psychiatrists' awareness of adherence to antipsychotic medication in patients with schizophrenia: Results from a survey conducted across Europe, the Middle East, and Africa. Patient Preference and Adherence, 7, 121–132. doi:10.2147/PPA.S37534
- Oller-Canet, S., Fernández-San Martín, M. I., García-Lecina, R., Castro Rodríguez, J. I., Font-Canal, T., & Lacasta-Tintorer, D. (2011). Do depressed patients comply with treatments prescribed? A cross-sectional study of adherence to the antidepressant treatment. Actas Espanolas de Psiquiatria, 39(5), 288–293.
- Pedrero, E. J., Puerta, C., Lagares, A., Sáez, A., & García, I. (2004). [Study of burnout in professionals of drug dependencies]. *Trastornos Adictivos*, 6(1), 5–15.
- Pettinati, H. M., O'Brien, C. P., & Dundon, W. D. (2013). Current status of co-occurring mood and substance use disorders: A new therapeutic target. *The American Journal of Psychiatry*, 170(1), 23–30. doi:10.1176/appi.ajp.2012.12010112
- Pulay, A. J., Stinson, F. S., Ruan, W. J., Smith, S. M., Pickering, R. P., Dawson, D. A., & Grant, B. F. (2010). The relationship of DSM-IV personality disorders to nicotine dependence-results from a national survey. *Drug and Alcohol Dependence*, 108(1–2), 141–145. doi:10.1016/j.drugalcdep.2009.12.004
- Regier, D. A., Farmer, M. E., Rae, D. S., Locke, B. Z., Keith, S. J., Judd, L. L., & Goodwin, F. K. (1990). Comorbidity of mental disorders with alcohol and other drug abuse. Results from the Epidemiologic Catchment Area (ECA) study. *JAMA: The Journal of the American Medical Association*, 264(19), 2511–2518. doi:10.1001/jama.1990.03450190043026
- Roncero, C., Barral, C., Grau-Lopez, L., Bachiller, D., Szerman, N., Casas, M., & Ruiz, P. (2011). Protocols of dual diagnosis intervention in schizophrenia. *Addictive Disorders and Their Treatment*, 10(3), 131–154. doi:10.1097/ADT.0b013e318227ecdc
- Roncero, C., Fuste, G., Barral, C., Rodríguez-Cintas, L., Martínez-Luna, N., Eiroa-Orosa, F. J., & Casas, M. (2011). Therapeutic management and comorbidities in opiate-dependent patients undergoing a replacement therapy programme in Spain: The PROTEUS study. *Heroin Addiction and Related Clinical Problems*, 13(3), 5–16.
- Roncero, C., Gómez-Baeza, S., Vázquez, J. M., Terán, A., Szerman, N., Casas, M., & Bobes, J. (2013). Perception of Spanish professionals on Therapeutic Adherence of Dual Diagnosis Patients. Actas Españolas de Psiquiatría, 41(6), 319–329.
- Rush, B., & Koegl, C. J. (2008). Prevalence and profile of people with cooccurring mental and substance use disorders within a comprehensive mental health system. *Canadian Journal of Psychiatry*, 53(12), 810–821.
- Swendsen, J., Conway, K. P., Degenhardt, L., Glantz, M., Jin, R., Merikangas, K. R., . . . Kessler, R. C. (2010). Mental disorders as risk factors for substance use, abuse and dependence: Results from the 10-year follow-up of the National Comorbidity Survey. *Addiction*, 105(6), 1117–1128. doi:10.1111/j.1360-0443.2010.02902.x
- Szerman, N., Lopez-Castroman, J., Arias, F., Morant, C., Babín, F., Mesías, B., ... Baca-García, E. (2012). Dual diagnosis and suicide risk in a Spanish outpatient sample. Substance Use & Misuse, 47(4), 383–389. doi:10.3109/10826084.2011.636135
- Szerman, N., Martínez-Raga, J., Peris, L., Roncero, C., Basurte, I., Vega, P., ... Casas, M. (2013). Rethinking dual disorders/

90 N. Szerman et al.

- pathology. Addictive Disorders and Their Treatment, 12(1), 1–10. doi:10.1097/ADT.0b013e31826e7b6a
- Thylstrup, B., & Johansen, K. S. (2009). Dual diagnosis and psychosocial interventions–Introduction and commentary. *Nordic Journal of Psychia*try, 63(3), 202–208. doi:10.1080/08039480802571069
- Torrens, M. (2008). [Dual diagnosis: actual situation and future prospects]. *Adicciones*, 20(4), 315–320.
- Velligan, D. I., Leiden, P. J., Sajatovic, M., Scott, J., Carpenter, D., Ross, R., & Docherty, J. P. (2010). Assessment of adherence problems in patients with serious and persistent mental illness: Recommendations from the Expert Consensus Guidelines. *Journal of Psychiatric Practice*, 16(1), 34–45.
- Volkow, N. D. (2007). Addiction and co-ocurring mental disorders. Director's perspective. NIDA Notes, 21, 2.
- Volkow, N. (2001). Drug abuse and mental illness: Progress in understanding comorbidity. The American Journal of Psychiatry, 158, 1181–1183.
- Weaver, T., Madden, P., Charles, V., Stimson, G., Renton, A., Tyrer, P., ... Comorbidity of Substance Misuse and Mental Illness Collaborative (COSMIC) study team. (2003). Comorbidity of substance misuse and mental illness in community mental health and substance misuse services. The British Journal of Psychiatry, 183, 304–313. doi:10.1192/02-623
- World Health Organization. (1994). Lexicon of alcohol and drug terms. Geneva, Switzerland: Author.
- Zaleski, M., Laranjeira, R. R., Marques, A. C., Ratto, L., Romano, M., Alves, H. N., . . . Brazilian Association of Studies on Alcohol and Other Drugs (2006). [Guidelines of the Brazilian Association of Studies on Alcohol and Other Drugs (ABEAD) for diagnoses and treatment of psychiatric comorbidity with alcohol and other drugs dependence]. Revista Brasileira de Psiquiatria, 28(2), 142–148. doi:10.1590/S1516-44462006000-200013