

# BMJ Open

## Doctors with Mental Health Disorders asking for help to a Physicians' Health Program: voluntary vs. non-voluntary admissions

Journal:	<i>BMJ Open</i>
Manuscript ID:	bmjopen-2014-005248
Article Type:	Research
Date Submitted by the Author:	12-Mar-2014
Complete List of Authors:	<p>Braquehais, María Dolores; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p> <p>Valero, Sergi; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p> <p>Bel, Miquel Jordi; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p> <p>Navarro, María Cecilia; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals</p> <p>Matalí, Josep Lluís; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals</p> <p>Nasillo, Viviana; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p> <p>Padrós, Jaume; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals</p> <p>Arteman, Antoni; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals</p> <p>Bruguera, Eugeni; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p> <p>Casas, Miquel; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p>
<b>Primary Subject Heading</b>:	Public health
Secondary Subject Heading:	Mental health, Health services research
Keywords:	PSYCHIATRY, OCCUPATIONAL & INDUSTRIAL MEDICINE, PUBLIC HEALTH

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

SCHOLARONE™  
Manuscripts

For peer review only

1  
2  
3  
4 **DOCTORS WITH MENTAL HEALTH DISORDERS ASKING FOR HELP TO**  
5 **A PHYSICIANS' HEALTH PROGRAM: VOLUNTARY VS. NON-**  
6 **VOLUNTARY ADMISSIONS**  
7  
8

9 María Dolores Braquehais\*/\*\*, Sergi Valero\*\*, Miquel Jordi Bel\*/\*\*, María Cecilia  
10 Navarro\*, Josep Lluís Matalí\*, Viviana Nasillo\*\*, Jaume Padrós\*, Antoni Arteman\*,  
11 Eugeni Bruguera\*/\*\*, Miquel Casas\*/\*\*.

12  
13  
14 \* *Integral Care Program for Sick Health Professionals, Galatea Clinic, Galatea*  
15 *Foundation, Col·legi Oficial de Metges de Barcelona, Barcelona, Spain*

16 \*\**Department of Psychiatry, Hospital Universitari Vall d'Hebron, CIBERSAM,*  
17 *Universitat Autònoma de Barcelona, Barcelona, Spain*  
18  
19

20  
21 **Corresponding author**

22 *María Dolores Braquehais, M.D., Ph.D.*

23 Clinical Director, Inpatient Psychiatry Unit, Galatea Clinic

24 Integral Care Program for Sick Health Professionals, Galatea Foundation, *Col·legi*  
25 *Oficial de Metges de Barcelona*

26 Passeig Bonanova, 47

27 08017 Barcelona (Spain)

28 Tel: 0034- 93 567 88 56

29 Fax: 0034- 93 567 88 54

30 Email : [mdbraquehais@vhebron.net](mailto:mdbraquehais@vhebron.net); [mdbraquehais.paimm@comb.cat](mailto:mdbraquehais.paimm@comb.cat)  
31  
32

33 **Keywords**

34 Physicians' Health Programs; doctors; self-referral; voluntary ; compulsory  
35  
36

37 **Word count**

38 1,377 words  
39

40 **Contributorship statement**

41 Dr. Braquehais, the main researcher, was involved in all phases of the study, including  
42 study design, literature search, conduct of the study, data analysis and final article write  
43 up. Dr. Sergi Valero performed the statistical analysis and reviewed the manuscript.  
44 Mrs. Viviana Nasillo edited the paper in English. Dr. Bel, Dr. Navarro, Dr. Padrós, Mr.  
45 Matalí, Dr. Arteman, Dr. Bruguera and Dr. Casas contributed to the critical review of  
46 the paper. All authors approved the final version of the manuscript.  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

**ABSTRACT**

**Objective:** To compare the profile of doctors with Mental Disorders admitted to a Physicians' Health Program depending on their way of access (voluntary vs. non-voluntary).

**Design:** Retrospective chart review.

**Method:** We analyzed 1,545 medical records of doctors admitted to the Physicians' Health Program of Barcelona from February 1<sup>st</sup> 1998 until December 31<sup>st</sup> 2012.

**Results:** Most doctors (83.2%) entered the program voluntarily. Doctors with induced-compulsory referrals were older ( $\bar{x}$  =55.0 vs.  $\bar{x}$  =49.6 years;  $t=6.96$ ,  $p<0.01$ ). More men (68.3%) than women (45.8%) had non-voluntary admissions (OR= 0.39; 95% CI=0.29-0.52). Self-referrals were more frequent among patients with Non-Addictive Mental Disorders (84.6% vs. 15.4%; OR=4.52; 95% CI= 3.23-28.45).

Patients self-referred needed less inpatient admissions (16.8% vs.30.9%; OR=2.22; 95% CI=1.63–3.01) and the length of their treatment episodes was shorter ( $\bar{x}$  =24.3 vs.  $\bar{x}$ =32.4 months;  $t=3.34$ ;  $p<0.01$ ). Logistic regression showed a significant model (Chi-square=67.52;  $df=3$ ;  $p<0.001$ ). Age, gender and diagnosis were statistically associated to type of referral.

**Conclusions:** Male, older and addictive doctors may have greater difficulties in asking for help to Physicians' Health Programs. These patients also need more clinical resources than those who enter the program voluntarily. Preventive and treatment interventions for this specific population should carefully consider these findings.

## STRENGTHS AND LIMITATIONS OF THIS STUDY

- *“This is the first study that compares the profile of doctors treated at a Physicians’ Health Program depending on their type of admission (voluntary vs. non-voluntary)”*
- *“This study is based on data from the Physicians’ Health Program located in Barcelona (Spain)”*
- *“The results suggest that male, older and addictive doctors may have greater difficulties in asking for help to our Physicians’ Health Program. These patients also need more clinical resources than those who enter the program voluntarily”*
- *“The main limitations of this study are the study design (a chart review) and the lack of information about clinical and other psychosocial variables that could be related to the type of admission”*
- *“Non stigmatizing doctors with addictions, promoting help seeking among male physicians, and encouraging early self-identification of Mental Disorders could become effective preventive strategies in this professional group”*

## INTRODUCTION

The first specific programs for physicians (Physicians’ Health Programs, PHPs) suffering from Mental Health Disorders (i.e. *sick doctors*) were developed in USA since the late 1970s with the main aim of preventing malpractice behaviors, mainly related to drug and alcohol misuse.[1-3] Similar programs were developed later on in Canada,[4] Australia,[5] and the UK[6]. Norway[7] and Switzerland[8] offer basic preventive and counselling services for doctors as well. Some French regions are willing to implement similar programs for their practising physicians. However, most ongoing programs for doctors mainly provide compulsory treatment when malpractice issues have been involved.

1  
2  
3 In Spain, the PHPs (PAIME, in Spanish) were developed since 1998 and are ruled by  
4 the “Colegio de Médicos” of each Spanish region.[9] Spanish “Colegios de Médicos”  
5 are institutions where all doctors need to be registered. They act both as Medical  
6 Associations and as Regulatory Bodies (or Medical Councils). Every “Colegio de  
7 Médicos” in Spain offers to their registered physicians a PHP outpatient service.  
8  
9 Nonetheless, there is only one PHP inpatient unit for all of the Spanish PHP programs  
10 currently located in Barcelona. The doctor-as-patient’s last names are changed once  
11 he/she enters the program in order to warrant confidentiality. Their real identity can  
12 only be disclosed without their consent if there is a threat to self or others.  
13  
14  
15  
16  
17  
18  
19  
20  
21

22 The Spanish PHP promotes voluntary treatment as well as enrollment in preventive  
23 interventions. Only when malpractice issues are identified, the treatment becomes  
24 compulsory. Compulsory actions in all countries applying this program are similar once  
25 doctors with high risk or evidence of malpractice are identified from having a Mental  
26 Health Disorder. Sick doctors are obliged to undergo a psychiatric treatment and must  
27 prove they remain abstinent (if they suffer from an Addictive Disorder) in order to keep  
28 their license to practice.  
29  
30  
31  
32  
33  
34  
35  
36  
37

38 The aim of this study is to compare the profile of doctors with Mental Health Disorders  
39 who are admitted to the PHP located in Barcelona (PAIMM, in Catalan) depending on  
40 their form of admission (voluntary vs. non-voluntary). Our specific objectives were: a)  
41 to compare the differences in age, gender and main diagnosis at admission; b) to  
42 compare the mean length of treatment episodes and the number of inpatient admissions  
43 during their treatment process; and, c) to discuss the preventive and treatment  
44 implications of our findings.  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

## METHODS

### Setting

Medical records of physicians referred from the “Colegio de Médicos” of Barcelona to the PHP located in Barcelona were selected. We grouped the types of referrals into two groups: voluntary vs. non-voluntary. We identified voluntary referrals as those of patients self-referred to the program and non-voluntary referrals as those of patients coming after: 1) induced referral (by a colleague or relative); 2) confidential information received by their “Colegio de Médicos”; or, 3) formal complaint to the “Colegio de Médicos” due to malpractice issues being identified.

### Participants

A retrospective chart review of clinical and socio-demographic data was conducted on 1,545 medical records of physicians admitted to the Barcelona PHP from February 1st 1998 until December 31<sup>st</sup> 2012.

### Ethics

In Spain, neither approval by an Ethics Committee nor informed consents from patients are needed in order to conduct a chart review. Nevertheless, the principles outlined in the Declaration of Helsinki were followed during this research.

### Clinical and socio-demographic variables

The variables age, gender and type of referral (voluntary vs. non-voluntary) were selected. Main diagnosis at admission, according to DSM-IV criteria, was obtained from each medical record. We grouped the main diagnoses into two groups (Substance Used Disorders and non-Substance Use Disorders).

1  
2  
3 Other clinical variables were related to the time (in months) the patients were treated in  
4 the program and the presence of inpatient admissions during their follow-up period.  
5  
6

### 7 8 **Statistical analyses** 9

10 Chi-square tests were used to compare dichotomous variables between groups. Odds  
11 ratios with 95% confidence intervals were used to analyze the relationship between  
12 binary variables. Student's t-tests were used to compare quantitative variables. All  
13 hypothesis tests were two-tailed and conducted with an alpha of 0.05.  
14  
15

16 A logistic regression analysis was conducted to analyze the type of referral using age,  
17 gender, and main diagnosis as independent factors. All analyses were performed using  
18 SPSS version 20 (Chicago, IL).  
19  
20

## 21 22 **RESULTS** 23

24 Most doctors (83.2%) entered the program voluntarily. Doctors with non-voluntary  
25 referrals were older (mean=55.0; SD=11.68 vs. 49.6; SD=11.97 years;  $t=6.96$ ,  $p<0.01$ ).  
26  
27

28 More men (68.3%) than women (45.8%) were admitted after induced or compulsory  
29 referrals (OR= 0.39; 95% CI= 0.29-0.52). Voluntary admissions were more frequent  
30 among patients with non-Substance Use Disorders (84.6%) than among those with  
31 addictive disorders (15.4%) and these differences were statistically significant  
32 (OR=4.52; 95% CI= 3.23-28.45).  
33  
34

35 Patients self-referred seldom needed inpatient admissions (16.8%) compared to those  
36 with induced-compulsory admission (30.9%) and such differences found were  
37 statistically significant (OR=2.22; 95% CI=1.63–3.01). The length of treatment episodes  
38 was shorter for those identified as self-referred (mean=24.3; SD=28.42 vs. mean =32.4;  
39 SD=32.4 months;  $t=3.34$ ;  $p<0.01$ ).  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60



1  
2  
3 Logistic regression analysis showed a significant model (Chi-square=67.52; df=3;  
4  $p<0.001$ ). Age, gender and diagnosis were statistically associated to type of referral (see  
5  
6  
7 Table 1).  
8  
9

## 10 **DISCUSSION**

11  
12 This is the first study that compares the profile of doctors treated at a PHP depending on  
13 their form of admission (voluntary vs. non-voluntary). Most PHPs in other countries are  
14  
15 mainly devoted to provide compulsory treatment. Hence, the information we have about  
16  
17 doctors with Mental Health Disorders only makes references to those who have been  
18  
19 identified as in trouble because of their Mental Health Disorders, mainly, SUD. [10-11]  
20  
21

22 We have observed that doctors are more likely to voluntarily ask for help to our PHP  
23  
24 when they are women and suffer from a non-Substance Use Disorder. Those self-  
25  
26 referred are also younger than those whose way of access is induced-compulsory. These  
27  
28 results suggest that doctors with addictive problems tend to delay seeking help, partly  
29  
30 because they may fear the legal consequences of their demand.[12] In line with other  
31  
32 studies, women physicians are more likely to ask for help when they suffer from mental  
33  
34 distress than their male counterparts.[13]  
35  
36

37 With regards to their follow-up, doctors who came voluntarily, had shorter treatment  
38  
39 episodes and needed less inpatient admissions than those with other types of referral.  
40  
41 These findings could suggest a better prognosis in those seeking help compared to those  
42  
43 forced to enter the program.  
44  
45  
46  
47

48 The main limitations of this study are: a) it is a retrospective chart review; b) there was  
49  
50 only one main diagnosis for each patient and it was not obtained after a semi-structured  
51  
52 interview; c) there were no data available on personality traits and/or other psychosocial  
53  
54 variables that could be related to the type of referral to the program.  
55  
56  
57  
58  
59  
60

1  
2  
3 The results of this study may help identify sick doctors with greater difficulties in  
4 asking for help to PHP. Non stigmatizing doctors with addictions, enhancing help  
5 seeking among male physicians, and encouraging self-identification of Mental Health  
6 Disorders since the early stages of their Medicine career could become effective  
7 preventive strategies within this professional group.  
8

9  
10  
11  
12  
13  
14 On the other hand, our follow-up observations need to be taken into account from an  
15 organizational perspective, as doctors with mental or emotional distress who are more  
16 reluctant to ask for help may need more clinical resources than those who are motivated  
17 with their treatment.  
18  
19  
20  
21

## 22 23 24 **ACKNOWLEDGEMENTS**

25  
26 We would like to thank the members of Galatea Foundation and of the *Col·legi de*  
27 *Metges de Barcelona* for their constant support in the development and maintenance of  
28 our Physicians' Health Program.  
29  
30  
31

## 32 33 34 **COMPETING INTERESTS**

35  
36 None declared.  
37  
38

## 39 40 **FUNDING**

41  
42 None declared.  
43  
44

## 45 46 **DATA SHARING STATEMENT**

47  
48 No additional data available.  
49

## 50 51 **REFERENCES**

- 52  
53 1. Talbott GD, Martin CA. Treating impaired physicians: fourteen keys to success.  
54  
55 Virginia Medical 1986; 113: 95–9.  
56  
57  
58  
59  
60

- 1  
2  
3 2. DuPont RL, McLellan AT, Carr G, et al. How are addicted physicians treated? A  
4 national survey of Physician Health Programs. *J Subst Abuse Treat* 2009; 37: 1–  
5 7. doi: 10.1016/j.sat.2009.03.010  
6  
7
- 8  
9 3. Dupont RL, Skipper GE. Six lessons from state physician health programs to  
10 promote long-term recovery. *J Psychoac Drugs* 2012; 44: 72–8.  
11
- 12 4. Puddester DG. Canada responds: an explosion in doctors' health awareness,  
13 promotion and intervention. *Med J Aust* 2004; 181: 386–7.  
14
- 15 5. Jurd SM. Helping addicted colleagues. *Med J Aust* 2004; 181: 400–2.  
16
- 17 6. Oxley JR. Services for sick doctors in the UK. *Med J Aust* 2004; 181: 388-9.  
18
- 19 7. Ro KEI, Gude T, Aasland OG. Does a self-referral counselling program reach  
20 doctors in need of help? A comparison with the general Norwegian doctor  
21 workforce. *BMC Public Health* 2007; 7:36.  
22
- 23 8. Hegenbarth C. Rescuing doctors in distress. *CMAJ* 2011; 183: E153-E154. doi:  
24 10.1503/cmaj.109-3760.  
25
- 26 9. Bosch X. First impaired physicians therapy program appears to be successful in  
27 Spain. *JAMA* 2000; 283: 3186–7.  
28
- 29 10. McLellan AT, Skipper GS, Campbell M, et al. Five years outcomes in a cohort  
30 study of physicians treated for substance use disorders in the United States. *BMJ*  
31 2008; 337:a2038. doi: 10.1136/bmj.a.2038.  
32
- 33 11. Brewster JM, Kaufmann IM, Hutchison S, et al. Characteristics and outcomes of  
34 doctors in a substance dependence monitoring programme in Canada:  
35 prospective descriptive study. *BMJ* 2008; 337: a2098. doi: 10.1136/bmj.a2098.  
36
- 37 12. Carinci A, Christo PJ. Physician Impairment: Is Recovery Feasible? *Pain Phys*  
38 2009; 12: 487–491.  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

13. Firth-Cozens J. Doctors with difficulties: why so few women? Postgrad Med J  
2008;84:318 –320.

For peer review only

**Table 1. Logistic Regression Analysis output of form of admission**

Variables	<i>B</i>	Wald	Sig.	OR (CI 95%)
Age	0.025	9.970	<.01	1.025 (1.010 – 1.042)
Gender (M/F)	-0.557	9.385	<.01	0.573 (0.401 – 0.818)
SUD vs. Non-SUD	-1.331	59.031	<0.001	0.264 (0.188- 0.371)
Constant	.298			

*Note.* Self-referral= 1; control group = 0; SUD=Substance Use Disorders.

# BMJ Open

## DOCTORS ADMITTED TO A PHYSICIANS' HEALTH PROGRAM: A COMPARISON OF VOLUNTARY VS. NON-VOLUNTARY REFERRALS

Journal:	<i>BMJ Open</i>
Manuscript ID:	bmjopen-2014-005248.R1
Article Type:	Research
Date Submitted by the Author:	21-May-2014
Complete List of Authors:	<p>Braquehais, María Dolores; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p> <p>Valero, Sergi; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p> <p>Bel, Miquel Jordi; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p> <p>Navarro, María Cecilia; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals</p> <p>Matalí, Josep Lluís; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals</p> <p>Nasillo, Viviana; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p> <p>Padrós, Jaume; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals</p> <p>Arteman, Antoni; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals</p> <p>Bruguera, Eugeni; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p> <p>Casas, Miquel; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p>
<b>Primary Subject Heading</b>:	Public health
Secondary Subject Heading:	Mental health, Health services research
Keywords:	PSYCHIATRY, OCCUPATIONAL & INDUSTRIAL MEDICINE, PUBLIC HEALTH

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

SCHOLARONE™  
Manuscripts

For peer review only

## DOCTORS ADMITTED TO A PHYSICIANS' HEALTH PROGRAM: A COMPARISON OF VOLUNTARY VS. NON-VOLUNTARY REFERRALS

María Dolores Braquehais\*/\*\*, Sergi Valero\*\*, Miquel Jordi Bel\*/\*\*, María Cecilia Navarro\*, Josep Lluís Matalí\*, Viviana Nasillo\*\*, Jaume Padrós\*, Antoni Arteman\*, Eugeni Bruguera\*/\*\*, Miquel Casas\*/\*\*.

\* *Integral Care Program for Sick Health Professionals, Galatea Clinic, Galatea Foundation, Col·legi Oficial de Metges de Barcelona, Barcelona, Spain*

\*\**Department of Psychiatry, Hospital Universitari Vall d'Hebron, CIBERSAM, Universitat Autònoma de Barcelona, Barcelona, Spain*

### Corresponding author

*María Dolores Braquehais, M.D., Ph.D.*

Clinical Director, Inpatient Psychiatry Unit, Galatea Clinic

Integral Care Program for Sick Health Professionals, Galatea Foundation, *Col·legi Oficial de Metges de Barcelona*

Passeig Bonanova, 47

08017 Barcelona (Spain)

Tel: 0034- 93 567 88 56

Fax: 0034- 93 567 88 54

Email : [mdbraquehais@vhebron.net](mailto:mdbraquehais@vhebron.net); [mdbraquehais.paimm@comb.cat](mailto:mdbraquehais.paimm@comb.cat)

### Keywords

Physicians' Health Programs; doctors; type of referral; voluntary; non-voluntary

### Word count

1,651 words

### Contributorship statement

Dr. Braquehais, the main researcher, was involved in all phases of the study, including study design, literature search, conduct of the study, data analysis and final article write up. Dr. Sergi Valero performed the statistical analysis and reviewed the manuscript. Mrs. Viviana Nasillo edited the paper in English. Dr. Bel, Dr. Navarro, Dr. Padrós, Mr. Matalí, Dr. Arteman, Dr. Bruguera and Dr. Casas contributed to the critical review of the paper. All authors approved the final version of the manuscript.



**ABSTRACT**

**Objective:** To compare the profile of doctors with mental disorders admitted to a Physicians' Health Program (PHP) depending on their type of referral (voluntary vs. non-voluntary).

**Design:** Retrospective chart review.

**Method:** We analyzed 1,545 medical records of doctors admitted to the Barcelona PHP (PAIMM) from February 1<sup>st</sup> 1998 until December 31<sup>st</sup> 2012.

**Results:** Most doctors (83.2%) were self-referred to the program. Patients non-voluntarily referred were older ( $\bar{x}$  =55.0 vs.  $\bar{x}$  =49.6 years;  $t=6.96$ ,  $p<0.01$ ) than those self-referred and there were more men (68.3%) than women (45.8%) (OR= 0.39; 95% CI=0.29-0.52). Self-referrals were more frequent among patients with non-addictive disorders (84.6% vs. 15.4%; OR=4.52; 95% CI= 3.23-28.45). Self-referred patients needed less inpatient admissions (16.8% vs.30.9%; OR=2.22; 95% CI=1.63–3.01) and the length of their treatment episodes was shorter ( $\bar{x}$  =24.3 vs.  $\bar{x}$ =32.4 months;  $t=3.34$ ;  $p<0.01$ ). Logistic regression showed a significant model (Chi-square=67.52;  $df=3$ ;  $p<0.001$ ). Age, gender and diagnosis were statistically associated with type of referral to the program.

**Conclusions:** Type of referral to a PHP may be influenced not only by sick doctors' personal traits but also by each program's design and how it is perceived by service users. Our findings should be taken into account when designing treatment and preventive interventions for this professional group.

## STRENGTHS AND LIMITATIONS OF THIS STUDY

- *“This is the first study comparing the profile of doctors treated at a Physicians’ Health Program depending on their type of referral (voluntary vs. non-voluntary). It is based on data from the Barcelona Physicians’ Health Program (PHP)”*

- *“The results suggest that doctors who are male, older or suffering from addictions may have greater difficulties when asking for help from our Physicians’ Health Program. These patients also require more clinical resources than those who enter the program voluntarily”*

- *“The main limitations of this study include the study design (a chart review) and the lack of information about clinical and other psychosocial variables that could be related to the referral type”*

- *“Type of referral may be influenced by sick doctors’ personal traits as well as by the specific nature of PHP programs and how they are presented to users”*

## INTRODUCTION

The first specific programs for physicians (Physicians' Health Programs, PHPs) suffering from mental disorders (i.e. *sick doctors*) were developed in USA since the late 1970s with the main aim of preventing malpractice behaviors, mainly related to drug and alcohol misuse.[1-3] Programs with intensive preventive and treatment interventions were developed later on in Canada,[4] Australia,[5] and the UK[6]. Norway[7] and Switzerland[8] mainly offer preventive and counselling services for doctors. Some French regions are currently working to implement similar programs for their practising physicians.

In Spain, PHPs (PAIME, in Spanish) were developed since 1998 and are ruled by the "Colegio de Médicos" of each Spanish region.[9] "Colegios de Médicos" are institutions where all practicing doctors in Spain need to be registered. They act both as Medical Associations and Regulatory Bodies (or Medical Councils). Every "Colegio de Médicos" in Spain offers to their registered physicians a PHP outpatient service. Nonetheless, there is only one PHP inpatient unit for all of the Spanish PHPs, currently located in Barcelona. The doctor-as-patient's last names are changed once he/she enters the program in order to preserve confidentiality. Their real identity can only be disclosed without their consent if there is a threat to self or others.

The Spanish PHP promotes voluntary treatment as well as enrollment for preventive interventions. Treatment becomes obligatory only when risk or evidence of practice difficulties are identified. Mandatory actions can oblige sick doctors to undergo psychiatric treatment; if they suffer from an addictive disorder this includes proving abstinence once treatment has been completed. The final objective of all these interventions is to help sick doctors recover their personal wellbeing and help them go back safely to their professional practice.

1  
2  
3 The aim of this study is to compare the profile of doctors with mental disorders  
4 admitted to the PHP located in Barcelona (PAIMM, in Catalan) depending on their type  
5 of referral (voluntary vs. non-voluntary). Our specific objectives were: a) to compare  
6 the differences in age, gender and main diagnosis at admission; b) to compare the mean  
7 length of their treatment episodes and the number of inpatient admissions during their  
8 treatment process; and, c) to discuss the preventive and treatment implications of our  
9 findings.  
10

11  
12 To the best of the authors' knowledge, this is the first study that analyzes the traits and  
13 clinical needs of those who have entered a PHP. This could help identify which doctors  
14 may present greater difficulties in asking for help and should be taken into account  
15 when designing preventive and treatment strategies for them.  
16  
17

## 18 19 20 21 22 23 24 25 26 27 28 **METHODS**

### 29 30 31 **Setting**

32  
33 Medical records of physicians referred from the "Colegio de Médicos" of Barcelona to  
34 the Barcelona PHP were selected. We classified the types of referrals into two groups:  
35 voluntary vs. non-voluntary. We distinguished:  
36  
37

38  
39 1) Voluntary referrals: patients self-referred to the program.  
40

41  
42 2) Non-voluntary referrals:

43  
44 2.1) Induced referral by managers, colleagues or relatives.  
45

46  
47 2.2) Confidential information about practice problems received by their "Colegio de  
48 Médicos".  
49

50  
51 2.3) Formal complaint to the "Colegio de Médicos" due to practice difficulties.  
52

53  
54 If, after a clinical evaluation, a mental disorder is identified, the sick doctor is offered  
55 outpatient or inpatient treatment depending on the severity of each case.  
56  
57  
58  
59  
60

## Participants

A retrospective chart review of clinical and socio-demographic data was conducted on 1,545 medical records of physicians admitted to the Barcelona PHP from February 1st 1998 until December 31<sup>st</sup> 2012.

## Ethics

In Spain, neither approval by an Ethics Committee nor informed consents from patients are needed in order to conduct a chart review. Nevertheless, the principles outlined in the Declaration of Helsinki (10) were followed during this research.

## Clinical and socio-demographic variables

The variables age, gender and type of referral (voluntary vs. non-voluntary) were selected. Main diagnosis at admission, according to DSM-IV criteria (11), was obtained from each medical record. We grouped the main diagnoses into two groups (substance use disorders and non-substance use disorders).

Other clinical variables were related to the time (in months) the patients were treated in the program and to the presence of inpatient admissions during their follow-up period.

## Statistical analyses

Chi-square tests were used to compare dichotomous variables between groups. Odds ratios with 95% confidence intervals were used to analyze the relationship between binary variables. Student's t-tests were used to compare quantitative variables. All hypothesis tests were two-tailed and conducted with an alpha of 0.05.

A logistic regression analysis was conducted to analyze the type of referral using age, gender, and main diagnosis as independent factors. All analyses were performed using SPSS version 20 (Chicago, IL).

## RESULTS

Most doctors (83.2%) were self-referred to the program. Doctors with non-voluntary referrals were older ( $\bar{x}=55.0$ ;  $SD=11.68$  years vs.  $\bar{x}=49.6$ ;  $SD=11.97$  years;  $t=6.96$ ,  $p<0.01$ ). More men (68.3%) than women (45.8%) were admitted after non-voluntary referrals ( $OR= 0.39$ ; 95%  $CI= 0.29-0.52$ ). Voluntary admissions were more frequent among patients with non-substance use disorders (84.6%) than in those with addictive disorders (15.4%) being this difference statistically significant ( $OR=4.52$ ; 95%  $CI= 3.23-28.45$ ).

Self-referred patients needed inpatient admissions less frequently (16.8%) compared to those with non-voluntary referrals (30.9%); once again such differences were statistically significant ( $OR=2.22$ ; 95%  $CI=1.63-3.01$ ). The length of treatment episodes was shorter for those identified as self-referred (mean=24.3;  $SD=28.42$  months vs. mean =32.4;  $SD=32.4$  months;  $t=3.34$ ;  $p<0.01$ ).

Logistic regression analysis showed a significant model (Chi-square=67.52;  $df=3$ ;  $p<0.001$ ). Age, gender and diagnosis were statistically associated with the type of referral (see Table 1).

## DISCUSSION

This is the first study that compares the profile of doctors treated at a PHP according to their type of referral (voluntary vs. non-voluntary).

Cross-country comparisons between PHPs are difficult. Data about other PHPs in the US [12] and Canada [13] mainly provide information about non-voluntarily referred sick doctors as a result of substance use disorders. In the UK, the Practitioner Health Program [14] treated 554 practitioners and 20 other professionals during the 2008-2011 period, 85% for mental disorders, 28% for substance use disorders, and 17% for physical problems. Regretfully, no information was available regarding the ways of

1  
2  
3 access to this program. However 29% of patients needed an intervention from the  
4  
5 Regulatory Body.[14] In Switzerland [8], during a three-year period, 80 patients were  
6  
7 treated at the ReMed program mainly for burn-out and depression (43%) followed by  
8  
9 practice and everyday life problems (32%) and only 13% for addictive behaviours. In  
10  
11 Norway [7], after analyzing the data of 227 doctors who had come for counselling to a  
12  
13 specific program designed for them, 73% were in need of treatment for anxiety and  
14  
15 depression. When analyzing the ways of accessing the program, only 45% were self-  
16  
17 referred. No information for cases needing mandatory treatment is available from  
18  
19 Switzerland and Norway PHPs [7-8].  
20  
21

22  
23 Despite the differences between PHPs, mandatory actions in different countries have in  
24  
25 common that once malpractice problems are identified, sick doctors are obliged to  
26  
27 undergo psychiatric treatment and if they suffer from an addictive disorder they have to  
28  
29 remain abstinent. Otherwise, their license to practice will temporarily or definitively be  
30  
31 suspended [12-14].  
32  
33

34  
35 In our PHP, we have observed that doctors are more likely to voluntarily ask for help  
36  
37 when they are women and suffer from non-substance use disorders. Those self-referred  
38  
39 are also younger when comparing to those whose way of access has been non-  
40  
41 voluntary. These results suggest that doctors with addiction problems tend to delay  
42  
43 seeking help, maybe because they fear the consequences of their demand [15]. In line  
44  
45 with other studies, women physicians are more likely to ask for help when they suffer  
46  
47 from mental distress than their male counterparts.[16]  
48

49  
50 However, the specific nature of our PHP should be taken into account when interpreting  
51  
52 our results. Patients may feel encouraged to seek help in our program where voluntary  
53  
54 referrals are promoted and mandatory actions are only applied to cases at risk or in  
55  
56 evidence of practice problems. Therefore, type of referral may be influenced not only by  
57  
58  
59  
60

1  
2  
3 the sick doctors' problems but also by each PHP's design including how it is presented  
4  
5 to service users.  
6

7  
8 Our group has recently suggested that a non-punitive philosophy for sick doctors may  
9  
10 encourage help seeking amongst them. Since it was created in 1998, self-referrals to the  
11  
12 Barcelona PHP have grown from 81.3% during the first years to 91.5% in the last  
13  
14 period.[17]  
15

16  
17 In the present study, doctors who came voluntarily had shorter treatment episodes and  
18  
19 needed less inpatient admissions than those with other forms of referrals. These findings  
20  
21 suggest a better prognosis for those users seeking help voluntarily compared to those  
22  
23 forced to enter the program.  
24

25  
26 The main limitations of this study are: a) it is a retrospective chart review; b) there was  
27  
28 only one main diagnosis for each patient not obtained after a semi-structured interview;  
29  
30 c) the lack of personal and ecological variables from the users, as no data was available  
31  
32 in terms of personality traits and/or other psychosocial aspects possibly related to the  
33  
34 type of referral to our program.  
35

36  
37 Despite its limitations, the results of this study give some clues when attempting to  
38  
39 identify sick doctors with greater difficulties in asking for help from our PHP.  
40  
41 Destigmatizing doctors with addictions, enhancing help seeking among male  
42  
43 physicians, and encouraging self-identification of mental disorders from the early stages  
44  
45 of their Medical training could become effective preventive strategies within this  
46  
47 professional group.  
48

49  
50 On the other hand, our follow-up observations need to be taken into account from an  
51  
52 organizational perspective, as doctors with mental or emotional distress who are more  
53  
54 reluctant to ask for help from our PHP require additional clinical resources than those  
55  
56 who are motivated with their treatment.  
57  
58  
59  
60



1  
2  
3 Results from this study should be interpreted cautiously, especially when trying to  
4  
5 generalize our findings to other settings. The specific philosophy of our PHP is one  
6  
7 aspect to be considered. However, some features of sick doctors with difficulties in  
8  
9 seeking help may be similar to those observed in other PHPs. Therefore, preventive and  
10  
11 treatment strategies for sick doctors in all countries may benefit from taking into  
12  
13 account these findings.  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

For peer review only

## ACKNOWLEDGEMENTS

We would like to thank Dr. Andrew Tresidder for his assistance with the English edition of this manuscript.

We would also like to thank the members of Galatea Foundation and of the *Col·legi de Metges de Barcelona* for their constant support in the development and maintenance of our Physicians' Health Program.

## FUNDING

None declared.

## CONTRIBUTORSHIP STATEMENT

Dr. Braquehais, the main researcher, was involved in all phases of the study, including study design, literature search, conduct of the study, data analysis and final article write up. Dr. Sergi Valero performed the statistical analysis and reviewed the manuscript. Mrs. Viviana Nasillo edited the paper in English. Dr. Bel, Dr. Navarro, Dr. Padrós, Mr. Matalí, Dr. Arteman, Dr. Bruguera and Dr. Casas contributed to the critical review of the paper. All authors approved the final version of the manuscript.

## COMPETING INTERESTS

None declared.

## DATA SHARING STATEMENT

No additional data available.

## REFERENCES

1. Talbott GD, Martin CA. Treating impaired physicians: fourteen keys to success. *Virginia Medical* 1986; 113: 95–9.
2. DuPont RL, McLellan AT, Carr G, et al. How are addicted physicians treated? A national survey of Physician Health Programs. *J Subst Abuse Treat* 2009; 37: 1–7. doi: 10.1016/j.sat.2009.03.010
3. Dupont RL, Skipper GE. Six lessons from state physician health programs to promote long-term recovery. *J Psychoac Drugs* 2012; 44: 72–8.
4. Puddester DG. Canada responds: an explosion in doctors' health awareness, promotion and intervention. *Med J Aust* 2004; 181: 386–7.
5. Jurd SM. Helping addicted colleagues. *Med J Aust* 2004; 181: 400–2.
6. Oxley JR. Services for sick doctors in the UK. *Med J Aust* 2004; 181: 388-9.
7. Ro KEI, Gude T, Aasland OG. Does a self-referral counselling program reach doctors in need of help? A comparison with the general Norwegian doctor workforce. *BMC Public Health* 2007; 7:36.
8. Hegenbarth C. Rescuing doctors in distress. *CMAJ* 2011; 183: E153-E154. doi: 10.1503/cmaj.109-3760.
9. Bosch X. First impaired physicians therapy program appears to be successful in Spain. *JAMA* 2000; 283: 3186–7.
10. World Medical Association. World Medical Association Declaration of Helsinki. Ethical principles for Medical Research Involving Human Subjects. *JAMA* 2013;310: 2191-2194. doi: 10.1001/jama.2013.281053.
11. American Psychiatric Associations (2000). *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR)*. (Vol. 1).

1  
2  
3 Arlington, VA: American Psychiatric Association.  
4  
5 doi:10.1176/appi.books.9780890423349  
6

- 7  
8 12. McLellan AT, Skipper GS, Campbell M, et al. Five years outcomes in a cohort  
9  
10 study of physicians treated for substance use disorders in the United States. *BMJ*  
11  
12 2008; 337:a2038. doi: 10. 1136/bmj.a.2038.  
13  
14 13. Brewster JM, Kaufmann IM, Hutchison S, et al. Characteristics and outcomes of  
15  
16 doctors in a substance dependence monitoring programme in Canada:  
17  
18 prospective descriptive study. *BMJ* 2008; 337: a2098. doi: 10.1136/bmj.a2098.  
19  
20  
21 14. NHS Practitioner Health Programme [Internet]. London: National Health  
22  
23 Service: 2011 report; 2011 [cited 2014 May 14]. Version No: 3. Available from:  
24  
25 [http://php.nhs.uk/wp-content/uploads/sites/26/2013/11/PHP-Three-Year-Report-](http://php.nhs.uk/wp-content/uploads/sites/26/2013/11/PHP-Three-Year-Report-Final-Version-3.pdf)  
26  
27 [Final-Version-3.pdf](http://php.nhs.uk/wp-content/uploads/sites/26/2013/11/PHP-Three-Year-Report-Final-Version-3.pdf)  
28  
29  
30 15. Carinci A, Christo PJ. Physician Impairment: Is Recovery Feasible? *Pain Phys*  
31  
32 2009; 12: 487–491.  
33  
34 16. Firth-Cozens J. Doctors with difficulties: why so few women? *Postgrad Med J*  
35  
36 2008;84:318 –320.  
37  
38 17. Braquehais MD, Valero S, Matalí JL, et. al. Promoting voluntary help-seeking  
39  
40 among doctors with mental disorders. *Int J Occup Med Environ Health* 2014;  
41  
42 27(3):1-9. doi: 10.2478/s13382-014-0271-y  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

**Table 1. Logistic Regression Analysis output of form of admission**

Variables	<i>B</i>	Wald	Sig.	OR (CI 95%)
Age	0.025	9.970	<.01	1.025 (1.010 – 1.042)
Gender (M/F)	-0.557	9.385	<.01	0.573 (0.401 – 0.818)
SUD vs. Non-SUD	-1.331	59.031	<0.001	0.264 (0.188- 0.371)
Constant	.298			

*Note.* Self-referral= 1; control group = 0; SUD=Substance Use Disorders.

1  
2  
3  
4 **DOCTORS ADMITTED TO A PHYSICIANS' HEALTH PROGRAM: A**  
5 **COMPARISON OF VOLUNTARY VS. NON-VOLUNTARY REFERRALS**  
6

7 María Dolores Braquehais\*/\*\*, Sergi Valero\*\*, Miquel Jordi Bel\*/\*\*, María Cecilia  
8 Navarro\*, Josep Lluís Matalí\*, Viviana Nasillo\*\*, Jaume Padrós\*, Antoni Arteman\*,  
9 Eugeni Bruguera\*/\*\*, Miquel Casas\*/\*\*.

10  
11  
12 \* *Integral Care Program for Sick Health Professionals, Galatea Clinic, Galatea*  
13 *Foundation, Col·legi Oficial de Metges de Barcelona, Barcelona, Spain*

14 \*\**Department of Psychiatry, Hospital Universitari Vall d'Hebron, CIBERSAM,*  
15 *Universitat Autònoma de Barcelona, Barcelona, Spain*  
16

17  
18  
19  
20 **Corresponding author**

21 *María Dolores Braquehais, M.D., Ph.D.*

22 Clinical Director, Inpatient Psychiatry Unit, Galatea Clinic

23 Integral Care Program for Sick Health Professionals, Galatea Foundation, *Col·legi*  
24 *Oficial de Metges de Barcelona*

25 Passeig Bonanova, 47

26 08017 Barcelona (Spain)

27 Tel: 0034- 93 567 88 56

28 Fax: 0034- 93 567 88 54

29 Emai : [mdbraquehais@vhebron.net](mailto:mdbraquehais@vhebron.net); [mdbraquehais.paimm@comb.cat](mailto:mdbraquehais.paimm@comb.cat)  
30

31  
32 **Keywords**

33 Physicians' Health Programs; doctors; type of referral; voluntary; non-voluntary  
34

35 **Word count**

36 1,651 words  
37

38  
39 **Contributorship statement**

40 Dr. Braquehais, the main researcher, was involved in all phases of the study, including  
41 study design, literature search, conduct of the study, data analysis and final article write  
42 up. Dr. Sergi Valero performed the statistical analysis and reviewed the manuscript.  
43 Mrs. Viviana Nasillo edited the paper in English. Dr. Bel, Dr. Navarro, Dr. Padrós, Mr.  
44 Matalí, Dr. Arteman, Dr. Bruguera and Dr. Casas contributed to the critical review of  
45 the paper. All authors approved the final version of the manuscript.  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

## ABSTRACT

**Objective:** To compare the profile of doctors with mental disorders admitted to a Physicians' Health Program (PHP) depending on their type of referral (voluntary vs. non-voluntary).

**Design:** Retrospective chart review.

**Method:** We analyzed 1,545 medical records of doctors admitted to the Barcelona PHP (PAIMM) from February 1<sup>st</sup> 1998 until December 31<sup>st</sup> 2012.

**Results:** Most doctors (83.2%) were self-referred to the program. Patients non-voluntarily referred were older ( $\bar{x}$  =55.0 vs.  $\bar{x}$  =49.6 years;  $t=6.96$ ,  $p<0.01$ ) than those self-referred and there were more men (68.3%) than women (45.8%) (OR= 0.39; 95% CI=0.29-0.52). Self-referrals were more frequent among patients with non-addictive disorders (84.6% vs. 15.4%; OR=4.52; 95% CI= 3.23-28.45). Self-referred patients needed less inpatient admissions (16.8% vs.30.9%; OR=2.22; 95% CI=1.63–3.01) and the length of their treatment episodes was shorter ( $\bar{x}$  =24.3 vs.  $\bar{x}$ =32.4 months;  $t=3.34$ ;  $p<0.01$ ). Logistic regression showed a significant model (Chi-square=67.52;  $df=3$ ;  $p<0.001$ ). Age, gender and diagnosis were statistically associated with type of referral to the program.

**Conclusions:** Type of referral to a PHP may be influenced not only by sick doctors' personal traits but also by each program's design and how it is perceived by service users. Our findings should be taken into account when designing treatment and preventive interventions for this professional group.



## STRENGTHS AND LIMITATIONS OF THIS STUDY

- 1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60
- *“This is the first study comparing the profile of doctors treated at a Physicians’ Health Program depending on their type of referral (voluntary vs. non-voluntary). It is based on data from the Barcelona Physicians’ Health Program (PHP)”*
  - *“The results suggest that doctors who are male, older or suffering from addictions may have greater difficulties when asking for help from our Physicians’ Health Program. These patients also require more clinical resources than those who enter the program voluntarily”*
  - *“The main limitations of this study include the study design (a chart review) and the lack of information about clinical and other psychosocial variables that could be related to the referral type”*
  - *“Type of referral may be influenced by sick doctors’ personal traits as well as by the specific nature of PHP programs and how they are presented to users”*

## INTRODUCTION

The first specific programs for physicians (Physicians' Health Programs, PHPs) suffering from mental disorders (i.e. *sick doctors*) were developed in USA since the late 1970s with the main aim of preventing malpractice behaviors, mainly related to drug and alcohol misuse.[1-3] Programs with intensive preventive and treatment interventions were developed later on in Canada,[4] Australia,[5] and the UK[6]. Norway[7] and Switzerland[8] mainly offer preventive and counselling services for doctors. Some French regions are currently working to implement similar programs for their practising physicians.

In Spain, PHPs (PAIME, in Spanish) were developed since 1998 and are ruled by the "Colegio de Médicos" of each Spanish region.[9] "Colegios de Médicos" are institutions where all practicing doctors in Spain need to be registered. They act both as Medical Associations and Regulatory Bodies (or Medical Councils). Every "Colegio de Médicos" in Spain offers to their registered physicians a PHP outpatient service. Nonetheless, there is only one PHP inpatient unit for all of the Spanish PHPs, currently located in Barcelona. The doctor-as-patient's last names are changed once he/she enters the program in order to preserve confidentiality. Their real identity can only be disclosed without their consent if there is a threat to self or others.

The Spanish PHP promotes voluntary treatment as well as enrollment for preventive interventions. Treatment becomes obligatory only when risk or evidence of practice difficulties are identified. Mandatory actions can oblige sick doctors to undergo psychiatric treatment; if they suffer from an addictive disorder this includes proving abstinence once treatment has been completed. The final objective of all these interventions is to help sick doctors recover their personal wellbeing and help them go back safely to their professional practice.

1  
2  
3 The aim of this study is to compare the profile of doctors with mental disorders  
4 admitted to the PHP located in Barcelona (PAIMM, in Catalan) depending on their type  
5 of referral (voluntary vs. non-voluntary). Our specific objectives were: a) to compare  
6 the differences in age, gender and main diagnosis at admission; b) to compare the mean  
7 length of their treatment episodes and the number of inpatient admissions during their  
8 treatment process; and, c) to discuss the preventive and treatment implications of our  
9 findings.  
10  
11  
12  
13  
14  
15  
16  
17

18 To the best of the authors' knowledge, this is the first study that analyzes the traits and  
19 clinical needs of those who have entered a PHP. This could help identify which doctors  
20 may present greater difficulties in asking for help and should be taken into account  
21 when designing preventive and treatment strategies for them.  
22  
23  
24  
25  
26  
27

## 28 METHODS

### 31 Setting

32  
33 Medical records of physicians referred from the "Colegio de Médicos" of Barcelona to  
34 the Barcelona PHP were selected. We classified the types of referrals into two groups:  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1) Voluntary referrals: patients self-referred to the program.

2) Non-voluntary referrals:

2.1) Induced referral by managers, colleagues or relatives.

2.2) Confidential information about practice problems received by their "Colegio de Médicos".

2.3) Formal complaint to the "Colegio de Médicos" due to practice difficulties.

If, after a clinical evaluation, a mental disorder is identified, the sick doctor is offered outpatient or inpatient treatment depending on the severity of each case.

## Participants

A retrospective chart review of clinical and socio-demographic data was conducted on 1,545 medical records of physicians admitted to the Barcelona PHP from February 1st 1998 until December 31<sup>st</sup> 2012.

## Ethics

In Spain, neither approval by an Ethics Committee nor informed consents from patients are needed in order to conduct a chart review. Nevertheless, the principles outlined in the Declaration of Helsinki (10) were followed during this research.

## Clinical and socio-demographic variables

The variables age, gender and type of referral (voluntary vs. non-voluntary) were selected. Main diagnosis at admission, according to DSM-IV criteria (11), was obtained from each medical record. We grouped the main diagnoses into two groups (substance use disorders and non-substance use disorders).

Other clinical variables were related to the time (in months) the patients were treated in the program and to the presence of inpatient admissions during their follow-up period.

## Statistical analyses

Chi-square tests were used to compare dichotomous variables between groups. Odds ratios with 95% confidence intervals were used to analyze the relationship between binary variables. Student's t-tests were used to compare quantitative variables. All hypothesis tests were two-tailed and conducted with an alpha of 0.05.

A logistic regression analysis was conducted to analyze the type of referral using age, gender, and main diagnosis as independent factors. All analyses were performed using SPSS version 20 (Chicago, IL).

## RESULTS

Most doctors (83.2%) were self-referred to the program. Doctors with non-voluntary referrals were older ( $\bar{x}=55.0$ ;  $SD=11.68$  years vs.  $\bar{x}=49.6$ ;  $SD=11.97$  years;  $t=6.96$ ,  $p<0.01$ ). More men (68.3%) than women (45.8%) were admitted after non-voluntary referrals ( $OR=0.39$ ; 95%  $CI=0.29-0.52$ ). Voluntary admissions were more frequent among patients with non-substance use disorders (84.6%) than in those with addictive disorders (15.4%) being this difference statistically significant ( $OR=4.52$ ; 95%  $CI=3.23-28.45$ ).

Self-referred patients needed inpatient admissions less frequently (16.8%) compared to those with non-voluntary referrals (30.9%); once again such differences were statistically significant ( $OR=2.22$ ; 95%  $CI=1.63-3.01$ ). The length of treatment episodes was shorter for those identified as self-referred (mean=24.3;  $SD=28.42$  months vs. mean=32.4;  $SD=32.4$  months;  $t=3.34$ ;  $p<0.01$ ).

Logistic regression analysis showed a significant model ( $Chi-square=67.52$ ;  $df=3$ ;  $p<0.001$ ). Age, gender and diagnosis were statistically associated with the type of referral (see Table 1).

## DISCUSSION

This is the first study that compares the profile of doctors treated at a PHP according to their type of referral (voluntary vs. non-voluntary).

Cross-country comparisons between PHPs are difficult. Data about other PHPs in the US [12] and Canada [13] mainly provide information about non-voluntarily referred sick doctors as a result of substance use disorders. In the UK, the Practitioner Health Program [14] treated 554 practitioners and 20 other professionals during the 2008-2011 period, 85% for mental disorders, 28% for substance use disorders, and 17% for physical problems. Regrettably, no information was available regarding the ways of

1  
2  
3 access to this program. However 29% of patients needed an intervention from the  
4  
5 Regulatory Body.[14] In Switzerland [8], during a three-year period, 80 patients were  
6  
7 treated at the ReMed program mainly for burn-out and depression (43%) followed by  
8  
9 practice and everyday life problems (32%) and only 13% for addictive behaviours. In  
10  
11 Norway [7], after analyzing the data of 227 doctors who had come for counselling to a  
12  
13 specific program designed for them, 73% were in need of treatment for anxiety and  
14  
15 depression. When analyzing the ways of accessing the program, only 45% were self-  
16  
17 referred. No information for cases needing mandatory treatment is available from  
18  
19 Switzerland and Norway PHPs [7-8].  
20  
21

22  
23 Despite the differences between PHPs, mandatory actions in different countries have in  
24  
25 common that once malpractice problems are identified, sick doctors are obliged to  
26  
27 undergo psychiatric treatment and if they suffer from an addictive disorder they have to  
28  
29 remain abstinent. Otherwise, their license to practice will temporarily or definitively be  
30  
31 suspended [12-14].  
32  
33

34  
35 In our PHP, we have observed that doctors are more likely to voluntarily ask for help  
36  
37 when they are women and suffer from non-substance use disorders. Those self-referred  
38  
39 are also younger when comparing to those whose way of access has been non-  
40  
41 voluntary. These results suggest that doctors with addiction problems tend to delay  
42  
43 seeking help, maybe because they fear the consequences of their demand [15]. In line  
44  
45 with other studies, women physicians are more likely to ask for help when they suffer  
46  
47 from mental distress than their male counterparts.[16]  
48

49  
50 However, the specific nature of our PHP should be taken into account when interpreting  
51  
52 our results. Patients may feel encouraged to seek help in our program where voluntary  
53  
54 referrals are promoted and mandatory actions are only applied to cases at risk or in  
55  
56 evidence of practice problems. Therefore, type of referral may be influenced not only by  
57  
58  
59  
60

1  
2  
3 the sick doctors' problems but also by each PHP's design including how it is presented  
4  
5 to service users.  
6

7 Our group has recently suggested that a non-punitive philosophy for sick doctors may  
8  
9 encourage help seeking amongst them. Since it was created in 1998, self-referrals to the  
10  
11 Barcelona PHP have grown from 81.3% during the first years to 91.5% in the last  
12  
13 period.[17]  
14

15  
16 In the present study, doctors who came voluntarily had shorter treatment episodes and  
17  
18 needed less inpatient admissions than those with other forms of referrals. These findings  
19  
20 suggest a better prognosis for those users seeking help voluntarily compared to those  
21  
22 forced to enter the program.  
23

24  
25 The main limitations of this study are: a) it is a retrospective chart review; b) there was  
26  
27 only one main diagnosis for each patient not obtained after a semi-structured interview;  
28  
29 c) the lack of personal and ecological variables from the users, as no data was available  
30  
31 in terms of personality traits and/or other psychosocial aspects possibly related to the  
32  
33 type of referral to our program.  
34

35  
36 Despite its limitations, the results of this study give some clues when attempting to  
37  
38 identify sick doctors with greater difficulties in asking for help from our PHP.  
39

40 Destigmatizing doctors with addictions, enhancing help seeking among male  
41  
42 physicians, and encouraging self-identification of mental disorders from the early stages  
43  
44 of their Medical training could become effective preventive strategies within this  
45  
46 professional group.  
47

48  
49 On the other hand, our follow-up observations need to be taken into account from an  
50  
51 organizational perspective, as doctors with mental or emotional distress who are more  
52  
53 reluctant to ask for help from our PHP require additional clinical resources than those  
54  
55 who are motivated with their treatment.  
56  
57  
58  
59  
60

1  
2  
3 Results from this study should be interpreted cautiously, especially when trying to  
4  
5 generalize our findings to other settings. The specific philosophy of our PHP is one  
6  
7 aspect to be considered. However, some features of sick doctors with difficulties in  
8  
9 seeking help may be similar to those observed in other PHPs. Therefore, preventive and  
10  
11 treatment strategies for sick doctors in all countries may benefit from taking into  
12  
13 account these findings.  
14

## 15 16 17 **ACKNOWLEDGEMENTS**

18  
19 We would like to thank Dr. Andrew Tresidder for his assistance with the English edition  
20  
21 of this manuscript.  
22

23  
24 We would also like to thank the members of Galatea Foundation and of the *Col·legi de*  
25  
26 *Metges de Barcelona* for their constant support in the development and maintenance of  
27  
28 our Physicians' Health Program.  
29

## 30 31 32 **COMPETING INTERESTS**

33  
34 None declared.  
35

## 36 37 38 **FUNDING**

39  
40 None declared.  
41

## 42 43 44 **DATA SHARING STATEMENT**

45  
46 No additional data available.  
47

## 48 49 50 **REFERENCES**

- 51  
52 1. Talbott GD, Martin CA. Treating impaired physicians: fourteen keys to success.  
53  
54 Virginia Medical 1986; 113: 95–9.  
55  
56  
57  
58  
59  
60



- 1  
2  
3 2. DuPont RL, McLellan AT, Carr G, et al. How are addicted physicians treated? A  
4 national survey of Physician Health Programs. *J Subst Abuse Treat* 2009; 37: 1–  
5 7. doi: 10.1016/j.sat.2009.03.010  
6  
7
- 8  
9 3. Dupont RL, Skipper GE. Six lessons from state physician health programs to  
10 promote long-term recovery. *J Psychoac Drugs* 2012; 44: 72–8.  
11  
12
- 13 4. Puddester DG. Canada responds: an explosion in doctors' health awareness,  
14 promotion and intervention. *Med J Aust* 2004; 181: 386–7.  
15  
16
- 17 5. Jurd SM. Helping addicted colleagues. *Med J Aust* 2004; 181: 400–2.  
18  
19
- 20 6. Oxley JR. Services for sick doctors in the UK. *Med J Aust* 2004; 181: 388-9.  
21  
22
- 23 7. Ro KEI, Gude T, Aasland OG. Does a self-referral counselling program reach  
24 doctors in need of help? A comparison with the general Norwegian doctor  
25 workforce. *BMC Public Health* 2007; 7:36.  
26  
27
- 28 8. Hegenbarth C. Rescuing doctors in distress. *CMAJ* 2011; 183: E153-E154. doi:  
29 10.1503/cmaj.109-3760.  
30  
31
- 32 9. Bosch X. First impaired physicians therapy program appears to be successful in  
33 Spain. *JAMA* 2000; 283: 3186–7.  
34  
35
- 36 10. World Medical Association. World Medical Association Declaration of  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
10. World Medical Association. World Medical Association Declaration of  
Helsinki. Ethical principles for Medical Research Involving Human Subjects.  
*JAMA* 2013;310: 2191-2194. doi: 10.1001/jama.2013.281053.
11. American Psychiatric Associations (2000). *Diagnostic and Statistical Manual of  
Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR)*. (Vol. 1).  
Arlington, VA: American Psychiatric Association.  
doi:10.1176/appi.books.9780890423349

- 1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60
12. McLellan AT, Skipper GS, Campbell M, et al. Five years outcomes in a cohort study of physicians treated for substance use disorders in the United States. *BMJ* 2008; 337:a2038. doi: 10.1136/bmj.a.2038.
13. Brewster JM, Kaufmann IM, Hutchison S, et al. Characteristics and outcomes of doctors in a substance dependence monitoring programme in Canada: prospective descriptive study. *BMJ* 2008; 337: a2098. doi: 10.1136/bmj.a2098.
14. NHS Practitioner Health Programme [Internet]. London: National Health Service: 2011 report; 2011 [cited 2014 May 14]. Version No: 3. Available from: <http://php.nhs.uk/wp-content/uploads/sites/26/2013/11/PHP-Three-Year-Report-Final-Version-3.pdf>
15. Carinci A, Christo PJ. Physician Impairment: Is Recovery Feasible? *Pain Phys* 2009; 12: 487–491.
16. Firth-Cozens J. Doctors with difficulties: why so few women? *Postgrad Med J* 2008;84:318 –320.
17. Braquehais MD, Valero S, Matalí JL, Bel MJ, Montejo JE, Nasillo V, Arteman A, Padros J, Bruguera E, Casas M. Promoting voluntary help-seeking among doctors with mental disorders. *Int J Occup Med Environ Health* 2014; 27(3):1-9. doi: 10.2478/s13382-014-0271-y

**Table 1. Logistic Regression Analysis output of form of admission**

Variables	<i>B</i>	Wald	Sig.	OR	(CI 95%)
Age	0.025	9.970	<.01	1.025	(1.010 – 1.042)
Gender (M/F)	-0.557	9.385	<.01	0.573	(0.401 – 0.818)
SUD vs. Non-SUD	-1.331	59.031	<0.001	0.264	(0.188- 0.371)
Constant	.298				

*Note.* Self-referral= 1; control group = 0; SUD=Substance Use Disorders.

# BMJ Open

## DOCTORS ADMITTED TO A PHYSICIANS' HEALTH PROGRAM: A COMPARISON OF SELF-REFERRALS VS. DIRECTED REFERRALS

Journal:	<i>BMJ Open</i>
Manuscript ID:	bmjopen-2014-005248.R2
Article Type:	Research
Date Submitted by the Author:	18-Jun-2014
Complete List of Authors:	<p>Braquehais, María Dolores; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p> <p>Valero, Sergi; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p> <p>Bel, Miquel Jordi; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p> <p>Navarro, María Cecilia; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals</p> <p>Matalí, Josep Lluís; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals</p> <p>Nasillo, Viviana; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p> <p>Padrós, Jaume; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals</p> <p>Arteman, Antoni; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals</p> <p>Bruguera, Eugeni; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p> <p>Casas, Miquel; Galatea Clinic. Galatea Foundation, Inpatient Unit. Integral Care Program for Sick Health Professionals; Vall d'Hebron University Hospital, CIBERSAM, Universitat Autònoma de Barcelona, Department of Psychiatry and Legal Medicine</p>
<b>Primary Subject Heading</b>:	Public health
Secondary Subject Heading:	Mental health, Health services research
Keywords:	PSYCHIATRY, OCCUPATIONAL & INDUSTRIAL MEDICINE, PUBLIC HEALTH

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

SCHOLARONE™  
Manuscripts

For peer review only

1  
2  
3  
4 **DOCTORS ADMITTED TO A PHYSICIANS' HEALTH PROGRAM: A**  
5 **COMPARISON OF SELF-REFERRALS VS. DIRECTED REFERRALS**  
6

7 María Dolores Braquehais\*/\*\*, Sergi Valero\*\*, Miquel Jordi Bel\*/\*\*, María Cecilia  
8 Navarro\*, Josep Lluís Matalí\*, Viviana Nasillo\*\*, Jaume Padrós\*, Antoni Arteman\*,  
9 Eugeni Bruguera\*/\*\*, Miquel Casas\*/\*\*.

10  
11  
12 \* *Integral Care Program for Sick Health Professionals, Galatea Clinic, Galatea*  
13 *Foundation, Col·legi Oficial de Metges de Barcelona, Barcelona, Spain*

14 \*\**Department of Psychiatry, Hospital Universitari Vall d'Hebron, CIBERSAM,*  
15 *Universitat Autònoma de Barcelona, Barcelona, Spain*  
16

17  
18  
19  
20 **Corresponding author**

21 *María Dolores Braquehais, M.D., Ph.D.*

22 *Clinical Director, Inpatient Psychiatry Unit, Galatea Clinic*

23 *Integral Care Program for Sick Health Professionals, Galatea Foundation, Col·legi*  
24 *Oficial de Metges de Barcelona*

25 *Passeig Bonanova, 47*

26 *08017 Barcelona (Spain)*

27 *Tel: 0034- 93 567 88 56*

28 *Fax: 0034- 93 567 88 54*

29 *Emai : [mdbraquehais@vhebron.net](mailto:mdbraquehais@vhebron.net); [mdbraquehais.paimm@comb.cat](mailto:mdbraquehais.paimm@comb.cat)*  
30

31  
32 **Keywords**

33 *Physicians' Health Programs; doctors; type of referral; self-referral*  
34

35 **Word count**

36 1,724  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

## ABSTRACT

**Objective:** To compare the profile of doctors with mental disorders admitted to a Physicians' Health Program (PHP) depending on their type of referral.

**Design:** Retrospective chart review.

**Method:** We analyzed 1,545 medical records of doctors admitted to the Barcelona PHP (PAIMM) from February 1<sup>st</sup> 1998 until December 31<sup>st</sup> 2012.

**Results:** Most doctors (83.2%) were self-referred to the program. Patients non-self-referred were older ( $\bar{x}$  =55.0 vs.  $\bar{x}$  =49.6 years;  $t=6.96$ ,  $p<0.01$ ) than those self-referred and there were more men (68.3%) than women (45.8%) (OR= 0.39; 95% CI=0.29-0.52). Self-referrals were more frequent among patients with non-addictive disorders (84.6% vs. 15.4%; OR=4.52; 95% CI= 3.23-28.45). Self-referred patients needed less inpatient admissions (16.8% vs.30.9%; OR=2.22; 95% CI=1.63–3.01) and the length of their treatment episodes was shorter ( $\bar{x}$  =24.3 vs.  $\bar{x}$ =32.4 months;  $t=3.34$ ;  $p<0.01$ ). Logistic regression showed a significant model (Chi-square=67.52;  $df=3$ ;  $p<0.001$ ). Age, gender and diagnosis were statistically associated with type of referral to the program.

**Conclusions:** Type of referral to a PHP may be influenced not only by sick doctors' personal traits but also by each program's design and how it is perceived by service users. Our findings should be taken into account when designing treatment and preventive interventions for this professional group.

## STRENGTHS AND LIMITATIONS OF THIS STUDY

- *“This is the first study comparing the profile of doctors treated at a Physicians’ Health Program depending on their type of referral. It is based on data from the Barcelona Physicians’ Health Program (PHP)”*

- *“The results suggest that doctors who are male, older or suffering from addictions may have greater difficulties when asking for help from our Physicians’ Health Program. These patients also require more clinical resources than those who enter the program voluntarily”*

- *“The main limitations of this study include the study design (a chart review) and the lack of information about clinical and other psychosocial variables that could be related to the referral type”*

- *“Type of referral may be influenced by sick doctors’ personal traits as well as by the specific nature of PHP programs and how they are presented to users”*



## INTRODUCTION

The first specific programs for physicians (Physicians' Health Programs, PHPs) suffering from mental disorders (i.e. *sick doctors*) were developed in USA since the late 1970s with the main aim of preventing malpractice behaviors, mainly related to drug and alcohol misuse.[1-3] Programs with intensive preventive and treatment interventions were developed later on in Canada,[4] Australia,[5] and the UK[6]. Norway[7] and Switzerland[8] mainly offer preventive and counselling services for doctors. Some French regions are currently working to implement similar programs for their practising physicians.

In Spain, PHPs (PAIME, in Spanish) were developed since 1998 and are ruled by the "Colegio de Médicos" of each Spanish region.[9] "Colegios de Médicos" are institutions where all practicing doctors in Spain need to be registered. They act both as Medical Associations and Regulatory Bodies (or Medical Councils). Every "Colegio de Médicos" in Spain offers to their registered physicians a PHP outpatient service. Nonetheless, there is only one PHP inpatient unit for all of the Spanish PHPs, currently located in Barcelona. The doctor-as-patient's last names are changed once he/she enters the program in order to preserve confidentiality. Their real identity can only be disclosed without their consent if there is a threat to self or others.

The Spanish PHP promotes voluntary treatment as well as enrollment for preventive interventions. Treatment becomes obligatory only when risk or evidence of practice difficulties are identified. Mandatory actions can oblige sick doctors to undergo psychiatric treatment; if they suffer from an addictive disorder this includes proving abstinence once treatment has been completed. The final objective of all these interventions is to help sick doctors recover their personal wellbeing and help them go back safely to their professional practice.

1  
2  
3 The aim of this study is to compare the profile of doctors with mental disorders  
4 admitted to the PHP located in Barcelona (PAIMM, in Catalan) depending on their type  
5 of referral (self-referrals vs. directed referrals). Our specific objectives were: a) to  
6 compare the differences in age, gender and main diagnosis at admission; b) to compare  
7 the mean length of their treatment episodes and the number of inpatient admissions  
8 during their treatment process; and, c) to discuss the preventive and treatment  
9 implications of our findings.  
10  
11

12 To the best of the authors' knowledge, this is the first study that analyzes the traits and  
13 clinical needs of those who have entered a PHP. This could help identify which doctors  
14 may present greater difficulties in asking for help and should be taken into account  
15 when designing preventive and treatment strategies for them.  
16  
17

## 18 19 20 21 22 23 24 25 26 27 28 **METHODS**

### 29 30 31 **Setting**

32 Medical records of physicians referred from the "Colegio de Médicos" of Barcelona to  
33 the Barcelona PHP were selected. We classified the types of referrals into two groups:  
34 self-referrals vs. directed referrals. We distinguished:  
35  
36

37 1) Self-referrals: patients self-referred to the program.  
38  
39

40 2) Directed referrals:  
41  
42

43 2.1) Induced referral: although the patients call the program to ask for help, referrals are  
44 encouraged or induced by managers, colleagues or relatives.  
45  
46

47 2.2) Referral after a confidential information received by their "Colegio de Médicos"  
48 about practice problems.  
49  
50

51 2.3) Referral after a formal complaint received by the "Colegio de Médicos" due to  
52 practice difficulties.  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 If, after a clinical evaluation, a mental disorder is identified, the sick doctor is offered  
4  
5 outpatient or inpatient treatment depending on the severity of each case.  
6  
7

### 8 **Participants**

9  
10 A retrospective chart review of clinical and socio-demographic data was conducted on  
11  
12 1,545 medical records of physicians admitted to the Barcelona PHP from February 1st  
13  
14 1998 until December 31<sup>st</sup> 2012.  
15  
16

### 17 **Ethics**

18  
19 In Spain, neither approval by an Ethics Committee nor informed consents from patients  
20  
21 are needed in order to conduct a chart review. Nevertheless, the principles outlined in  
22  
23 the Declaration of Helsinki (10) were followed during this research.  
24  
25  
26  
27

### 28 **Clinical and socio-demographic variables**

29  
30 The variables age, gender and type of referral were selected. Main diagnosis at  
31  
32 admission, according to DSM-IV criteria (11), was obtained from each medical record.  
33  
34 We grouped the main diagnoses into two groups (substance use disorders and non-  
35  
36 substance use disorders).  
37  
38

39  
40 Other clinical variables were related to the time (in months) the patients were treated in  
41  
42 the program and to the presence of inpatient admissions during their follow-up period.  
43  
44

### 45 **Statistical analyses**

46  
47 Chi-square tests were used to compare dichotomous variables between groups. Odds  
48  
49 ratios with 95% confidence intervals were used to analyze the relationship between  
50  
51 binary variables. Student's t-tests were used to compare quantitative variables. All  
52  
53 hypothesis tests were two-tailed and conducted with an alpha of 0.05.  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 A logistic regression analysis was conducted to analyze the type of referral using age,  
4 gender, and main diagnosis as independent factors. All analyses were performed using  
5 SPSS version 20 (Chicago, IL).  
6  
7  
8  
9

## 10 RESULTS

11  
12 Most doctors (83.2%) were self-referred to the program. Doctors with other types of  
13 referrals were older ( $\bar{x}$ =55.0; SD=11.68 years vs.  $\bar{x}$ =49.6; SD=11.97 years;  $t$ =6.96,  
14  $p<0.01$ ). More men (68.3%) than women (45.8%) were not self-referred (OR= 0.39;  
15 95% CI= 0.29-0.52). Self-referrals were more frequent among patients with non-  
16 substance use disorders (84.6%) than in those with addictive disorders (15.4%) being  
17 this difference statistically significant (OR=4.52; 95% CI= 3.23-28.45).  
18  
19

20  
21 Self-referred patients needed inpatient admissions less frequently (16.8%) compared to  
22 those with non-voluntary referrals (30.9%); once again such differences were  
23 statistically significant (OR=2.22; 95% CI=1.63–3.01). The length of treatment episodes  
24 was shorter for those identified as self-referred (mean=24.3; SD=28.42 months vs. mean  
25 =32.4; SD=32.4 months;  $t$ =3.34;  $p<0.01$ ).  
26  
27

28  
29 Logistic regression analysis showed a significant model (Chi-square=67.52;  $df$ =3;  
30  $p<0.001$ ). Age, gender and diagnosis were statistically associated with the type of  
31 referral (see Table 1).  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44

## 45 DISCUSSION

46  
47 This is the first study that compares the profile of doctors treated at a PHP according to  
48 their type of referral.  
49

50  
51 Cross-country comparisons between PHPs are difficult. Data about other PHPs in the  
52 US [12] and Canada [13] mainly provide information about non-voluntarily referred  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 Program [14] treated 554 practitioners and 20 other professionals during the 2008-2011  
4  
5 period, 85% for mental disorders, 28% for substance use disorders, and 17% for  
6  
7 physical problems. Regretfully, no information was available regarding the ways of  
8  
9 access to this program. However 29% of patients needed an intervention from the  
10  
11 Regulatory Body.[14] In Switzerland [8], during a three-year period, 80 patients were  
12  
13 treated at the ReMed program mainly for burn-out and depression (43%) followed by  
14  
15 practice and everyday life problems (32%) and only 13% for addictive behaviours. In  
16  
17 Norway [7], after analyzing the data of 227 doctors who had come for counselling to a  
18  
19 specific program designed for them, 73% were in need of treatment for anxiety and  
20  
21 depression. When analyzing the ways of accessing the program, only 45% were self-  
22  
23 referred. No information for cases needing mandatory treatment is available from  
24  
25 Switzerland and Norway PHPs [7-8].  
26  
27  
28

29  
30 Despite the differences between PHPs, mandatory actions in different countries have in  
31  
32 common that once practice problems are identified, sick doctors are obliged to undergo  
33  
34 psychiatric treatment and if they suffer from an addictive disorder they have to remain  
35  
36 abstinent. Otherwise, their license to practice will temporarily or definitively be  
37  
38 suspended [12-14].  
39

40  
41 In our PHP, we have observed that doctors are more likely to be self-referred when they  
42  
43 are women and suffer from non-substance use disorders. Those self-referred are also  
44  
45 younger when comparing to those whose way of access has been non-voluntary. These  
46  
47 results suggest that doctors with addiction problems tend to delay seeking help, maybe  
48  
49 because they fear the consequences of their demand [15]. In line with other studies,  
50  
51 women physicians are more likely to ask for help when they suffer from mental distress  
52  
53 than their male counterparts.[16]  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 However, the specific nature of our PHP should be taken into account when interpreting  
4  
5 our results. Patients may feel encouraged to seek help in our program where voluntary  
6  
7 referrals are promoted and mandatory actions are only applied to cases at risk or in  
8  
9 evidence of practice problems. Therefore, type of referral may be influenced not only by  
10  
11 the sick doctors' problems but also by each PHP's design including how it is presented  
12  
13 to service users.

14  
15  
16 Our group has recently suggested that a non-punitive philosophy for sick doctors may  
17  
18 encourage help seeking amongst them. Since it was created in 1998, self-referrals to the  
19  
20 Barcelona PHP have grown from 81.3% during the first years to 91.5% in the last  
21  
22 period.[17]

23  
24  
25 In the present study, doctors who came voluntarily had shorter treatment episodes and  
26  
27 needed less inpatient admissions than those with other forms of referrals. These findings  
28  
29 suggest a better prognosis for those users seeking help voluntarily compared to those  
30  
31 forced to enter the program.

32  
33  
34 The main limitations of this study are: a) it is a retrospective chart review; b) there was  
35  
36 only one main diagnosis for each patient not obtained after a structured interview, such  
37  
38 as the Structured Clinical Interview for DSM Disorders (SCID-I) [18] c) the lack of  
39  
40 personal and ecological variables from the users, as no data was available in terms of  
41  
42 personality traits and/or other psychosocial aspects possibly related to the type of  
43  
44 referral to our program.

45  
46  
47 Despite its limitations, the results of this study give some clues when attempting to  
48  
49 identify sick doctors with greater difficulties in asking for help from our PHP.  
50  
51 Destigmatizing doctors with addictions, enhancing help seeking among male  
52  
53 physicians, and encouraging self-identification of mental disorders from the early stages  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 of their Medical training could become effective preventive strategies within this  
4  
5 professional group.  
6

7  
8 On the other hand, our follow-up observations need to be taken into account from an  
9  
10 organizational perspective, as doctors with mental or emotional distress who are more  
11  
12 reluctant to ask for help from our PHP require additional clinical resources than those  
13  
14 who are motivated with their treatment.  
15

16  
17 Results from this study should be interpreted cautiously, especially when trying to  
18  
19 generalize our findings to other settings. The specific philosophy of our PHP is one  
20  
21 aspect to be considered. However, some features of sick doctors with difficulties in  
22  
23 seeking help may be similar to those observed in other PHPs. Therefore, preventive and  
24  
25 treatment strategies for sick doctors in all countries may benefit from taking into  
26  
27 account these findings.  
28  
29

### 30 **ACKNOWLEDGEMENTS**

31  
32  
33 We would like to thank Dr. Andrew Tresidder for his assistance with the English edition  
34  
35 of this manuscript.  
36

37  
38 We would also like to thank the members of Galatea Foundation and of the *Col·legi de*  
39  
40 *Metges de Barcelona* for their constant support in the development and maintenance of  
41  
42 our Physicians' Health Program.  
43

### 44 **CONTRIBUTORSHIP**

45  
46 Dr. Braquehais, the main researcher, was involved in all phases of the study, including  
47  
48 study design, literature search, conduct of the study, data analysis and final article write  
49  
50 up. Dr. Sergi Valero performed the statistical analysis and reviewed the manuscript.  
51  
52 Mrs. Viviana Nasillo edited the paper in English. Dr. Bel, Dr. Navarro, Dr. Padrós, Mr.  
53  
54 Matalí, Dr. Arteman, Dr. Bruguera and Dr. Casas contributed to the critical review of  
55  
56 the paper. All authors approved the final version of the manuscript.  
57  
58  
59  
60

## COMPETING INTERESTS

None declared.

## FUNDING

None declared.

## DATA SHARING STATEMENT

No additional data available.

## REFERENCES

1. Talbott GD, Martin CA. Treating impaired physicians: fourteen keys to success. *Virginia Medical* 1986; 113: 95–9.
2. DuPont RL, McLellan AT, Carr G, et al. How are addicted physicians treated? A national survey of Physician Health Programs. *J Subst Abuse Treat* 2009; 37: 1–7. doi: 10.1016/j.sat.2009.03.010
3. Dupont RL, Skipper GE. Six lessons from state physician health programs to promote long-term recovery. *J Psychoac Drugs* 2012; 44: 72–8.
4. Puddester DG. Canada responds: an explosion in doctors' health awareness, promotion and intervention. *Med J Aust* 2004; 181: 386–7.
5. Jurd SM. Helping addicted colleagues. *Med J Aust* 2004; 181: 400–2.
6. Oxley JR. Services for sick doctors in the UK. *Med J Aust* 2004; 181: 388-9.
7. Ro KEI, Gude T, Aasland OG. Does a self-referral counselling program reach doctors in need of help? A comparison with the general Norwegian doctor workforce. *BMC Public Health* 2007; 7:36.
8. Hegenbarth C. Rescuing doctors in distress. *CMAJ* 2011; 183: E153-E154. doi: 10.1503/cmaj.109-3760.



- 1  
2  
3 9. Bosch X. First impaired physicians therapy program appears to be successful in  
4  
5 Spain. *JAMA* 2000; 283: 3186–7.  
6
- 7  
8 10. World Medical Association. World Medical Association Declaration of  
9  
10 Helsinki. Ethical principles for Medical Research Involving Human Subjects.  
11  
12 *JAMA* 2013;310: 2191-2194. doi: 10.1001/jama.2013.281053.  
13
- 14 11. American Psychiatric Associations (2000). Diagnostic and Statistical Manual of  
15  
16 Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR). (Vol. 1).  
17  
18 Arlington, VA: American Psychiatric Association.  
19  
20 doi:10.1176/appi.books.9780890423349  
21
- 22  
23 12. McLellan AT, Skipper GS, Campbell M, et al. Five years outcomes in a cohort  
24  
25 study of physicians treated for substance use disorders in the United States. *BMJ*  
26  
27 2008; 337:a2038. doi: 10. 1136/bmj.a.2038.  
28
- 29  
30 13. Brewster JM, Kaufmann IM, Hutchison S, et al. Characteristics and outcomes of  
31  
32 doctors in a substance dependence monitoring programme in Canada:  
33  
34 prospective descriptive study. *BMJ* 2008; 337: a2098. doi: 10.1136/bmj.a2098.  
35
- 36 14. NHS Practitioner Health Programme [Internet]. London: National Health  
37  
38 Service: 2011 report; 2011 [cited 2014 May 14]. Version No: 3. Available from:  
39  
40 [http://php.nhs.uk/wp-content/uploads/sites/26/2013/11/PHP-Three-Year-Report-](http://php.nhs.uk/wp-content/uploads/sites/26/2013/11/PHP-Three-Year-Report-Final-Version-3.pdf)  
41  
42 [Final-Version-3.pdf](http://php.nhs.uk/wp-content/uploads/sites/26/2013/11/PHP-Three-Year-Report-Final-Version-3.pdf)  
43  
44
- 45 15. Carinci A, Christo PJ. Physician Impairment: Is Recovery Feasible? *Pain Phys*  
46  
47 2009; 12: 487–491.  
48
- 49  
50 16. Firth-Cozens J. Doctors with difficulties: why so few women? *Postgrad Med J*  
51  
52 2008;84:318 –320.  
53
- 54 17. Braquehais MD, Valero S, Matalí JL, Bel MJ, Montejo JE, Nasillo V, Arteman  
55  
56 A, Padros J, Bruguera E, Casas M. Promoting voluntary help-seeking among  
57  
58  
59  
60

1  
2  
3 doctors with mental disorders. *Int J Occup Med Environ Health* 2014; 27(3):1-9.

4  
5 doi: 10.2478/s13382-014-0271-y

- 6  
7  
8 18. First MB, Spitzer RL, Williams JBW, Gibbon M. Structured Clinical Interview  
9 for DSM-IV (SCID-I) (User's Guide and Interview), Research Version, Non-  
10 Patient Edition. New York: Biometrics Research Department, New York  
11 Psychiatric Institute, 1995.  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

**Table 1. Logistic regression analysis output of type of referral**

Variables	<i>B</i>	Wald	Sig.	OR	(CI 95%)
Age	0.025	9.970	<.01	1.025	(1.010 – 1.042)
Gender (M/F)	-0.557	9.385	<.01	0.573	(0.401 – 0.818)
SUD vs. Non-SUD	-1.331	59.031	<0.001	0.264	(0.188- 0.371)
Constant	.298				

*Note.* Self-referral= 1; control group = 0; SUD=Substance Use Disorders.

1  
2  
3  
4 **DOCTORS ADMITTED TO A PHYSICIANS' HEALTH PROGRAM: A**  
5 **COMPARISON OF SELF-REFERRALS VS. DIRECTED REFERRALS**  
6

7 María Dolores Braquehais\*/\*\*, Sergi Valero\*\*, Miquel Jordi Bel\*/\*\*, María Cecilia  
8 Navarro\*, Josep Lluís Matalí\*, Viviana Nasillo\*\*, Jaume Padrós\*, Antoni Arteman\*,  
9 Eugeni Bruguera\*/\*\*, Miquel Casas\*/\*\*.

10  
11  
12 \* *Integral Care Program for Sick Health Professionals, Galatea Clinic, Galatea*  
13 *Foundation, Col·legi Oficial de Metges de Barcelona, Barcelona, Spain*

14 \*\**Department of Psychiatry, Hospital Universitari Vall d'Hebron, CIBERSAM,*  
15 *Universitat Autònoma de Barcelona, Barcelona, Spain*  
16

17  
18  
19  
20 **Corresponding author**

21 *María Dolores Braquehais, M.D., Ph.D.*

22 Clinical Director, Inpatient Psychiatry Unit, Galatea Clinic

23 Integral Care Program for Sick Health Professionals, Galatea Foundation, *Col·legi*  
24 *Oficial de Metges de Barcelona*

25 Passeig Bonanova, 47

26 08017 Barcelona (Spain)

27 Tel: 0034- 93 567 88 56

28 Fax: 0034- 93 567 88 54

29 Emai : [mdbraquehais@vhebron.net](mailto:mdbraquehais@vhebron.net); [mdbraquehais.paimm@comb.cat](mailto:mdbraquehais.paimm@comb.cat)  
30  
31

32 **Keywords**

33 Physicians' Health Programs; doctors; type of referral; self-referral  
34

35 **Word count**

36 1,724  
37  
38

39 **Contributorship statement**

40 Dr. Braquehais, the main researcher, was involved in all phases of the study, including  
41 study design, literature search, conduct of the study, data analysis and final article write  
42 up. Dr. Sergi Valero performed the statistical analysis and reviewed the manuscript.  
43 Mrs. Viviana Nasillo edited the paper in English. Dr. Bel, Dr. Navarro, Dr. Padrós, Mr.  
44 Matalí, Dr. Arteman, Dr. Bruguera and Dr. Casas contributed to the critical review of  
45 the paper. All authors approved the final version of the manuscript.  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

**ABSTRACT**

**Objective:** To compare the profile of doctors with mental disorders admitted to a Physicians' Health Program (PHP) depending on their type of referral.

**Design:** Retrospective chart review.

**Method:** We analyzed 1,545 medical records of doctors admitted to the Barcelona PHP (PAIMM) from February 1<sup>st</sup> 1998 until December 31<sup>st</sup> 2012.

**Results:** Most doctors (83.2%) were self-referred to the program. Patients **non-self-referred** were older ( $\bar{x}$  =55.0 vs.  $\bar{x}$  =49.6 years;  $t=6.96$ ,  $p<0.01$ ) than those self-referred and there were more men (68.3%) than women (45.8%) (OR= 0.39; 95% CI=0.29-0.52). Self-referrals were more frequent among patients with non-addictive disorders (84.6% vs. 15.4%; OR=4.52; 95% CI= 3.23-28.45). Self-referred patients needed less inpatient admissions (16.8% vs.30.9%; OR=2.22; 95% CI=1.63–3.01) and the length of their treatment episodes was shorter ( $\bar{x}$  =24.3 vs.  $\bar{x}$ =32.4 months;  $t=3.34$ ;  $p<0.01$ ). Logistic regression showed a significant model (Chi-square=67.52;  $df=3$ ;  $p<0.001$ ). Age, gender and diagnosis were statistically associated with type of referral to the program.

**Conclusions:** Type of referral to a PHP may be influenced not only by sick doctors' personal traits but also by each program's design and how it is perceived by service users. Our findings should be taken into account when designing treatment and preventive interventions for this professional group.

## STRENGTHS AND LIMITATIONS OF THIS STUDY

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

- “This is the first study comparing the profile of doctors treated at a Physicians’ Health Program depending on their type of referral. It is based on data from the Barcelona Physicians’ Health Program (PHP)”

- “The results suggest that doctors who are male, older or suffering from addictions may have greater difficulties when asking for help from our Physicians’ Health Program. These patients also require more clinical resources than those who enter the program voluntarily”

- “The main limitations of this study include the study design (a chart review) and the lack of information about clinical and other psychosocial variables that could be related to the referral type”

- “Type of referral may be influenced by sick doctors’ personal traits as well as by the specific nature of PHP programs and how they are presented to users”

## INTRODUCTION

The first specific programs for physicians (Physicians' Health Programs, PHPs) suffering from mental disorders (i.e. *sick doctors*) were developed in USA since the late 1970s with the main aim of preventing malpractice behaviors, mainly related to drug and alcohol misuse.[1-3] Programs with intensive preventive and treatment interventions were developed later on in Canada,[4] Australia,[5] and the UK[6]. Norway[7] and Switzerland[8] mainly offer preventive and counselling services for doctors. Some French regions are currently working to implement similar programs for their practising physicians.

In Spain, PHPs (PAIME, in Spanish) were developed since 1998 and are ruled by the "Colegio de Médicos" of each Spanish region.[9] "Colegios de Médicos" are institutions where all practicing doctors in Spain need to be registered. They act both as Medical Associations and Regulatory Bodies (or Medical Councils). Every "Colegio de Médicos" in Spain offers to their registered physicians a PHP outpatient service. Nonetheless, there is only one PHP inpatient unit for all of the Spanish PHPs, currently located in Barcelona. The doctor-as-patient's last names are changed once he/she enters the program in order to preserve confidentiality. Their real identity can only be disclosed without their consent if there is a threat to self or others.

The Spanish PHP promotes voluntary treatment as well as enrollment for preventive interventions. Treatment becomes obligatory only when risk or evidence of practice difficulties are identified. Mandatory actions can oblige sick doctors to undergo psychiatric treatment; if they suffer from an addictive disorder this includes proving abstinence once treatment has been completed. The final objective of all these interventions is to help sick doctors recover their personal wellbeing and help them go back safely to their professional practice.

1  
2  
3 The aim of this study is to compare the profile of doctors with mental disorders  
4 admitted to the PHP located in Barcelona (PAIMM, in Catalan) depending on their type  
5 of referral (self-referrals vs. directed referrals). Our specific objectives were: a) to  
6 compare the differences in age, gender and main diagnosis at admission; b) to compare  
7 the mean length of their treatment episodes and the number of inpatient admissions  
8 during their treatment process; and, c) to discuss the preventive and treatment  
9 implications of our findings.  
10  
11

12 To the best of the authors' knowledge, this is the first study that analyzes the traits and  
13 clinical needs of those who have entered a PHP. This could help identify which doctors  
14 may present greater difficulties in asking for help and should be taken into account  
15 when designing preventive and treatment strategies for them.  
16  
17

## 18 METHODS

### 19 Setting

20 Medical records of physicians referred from the "Colegio de Médicos" of Barcelona to  
21 the Barcelona PHP were selected. We classified the types of referrals into two groups:  
22 self-referrals vs. directed referrals. We distinguished:  
23

24 1) Self-referrals: patients self-referred to the program.  
25

26 2) Directed referrals:

27 2.1) Induced referral: although the patients call the program to ask for help, referrals are  
28 encouraged or induced by managers, colleagues or relatives.  
29

30 2.2) Referral after a confidential information received by their "Colegio de Médicos"  
31 about practice problems.  
32

33 2.3) Referral after a formal complaint received by the "Colegio de Médicos" due to  
34 practice difficulties.  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60



1  
2  
3 If, after a clinical evaluation, a mental disorder is identified, the sick doctor is offered  
4  
5 outpatient or inpatient treatment depending on the severity of each case.  
6  
7

### 8 **Participants**

9  
10 A retrospective chart review of clinical and socio-demographic data was conducted on  
11  
12 1,545 medical records of physicians admitted to the Barcelona PHP from February 1st  
13  
14 1998 until December 31<sup>st</sup> 2012.  
15  
16

### 17 **Ethics**

18  
19 In Spain, neither approval by an Ethics Committee nor informed consents from patients  
20  
21 are needed in order to conduct a chart review. Nevertheless, the principles outlined in  
22  
23 the Declaration of Helsinki (10) were followed during this research.  
24  
25  
26  
27

### 28 **Clinical and socio-demographic variables**

29  
30 The variables age, gender and type of referral were selected. Main diagnosis at  
31  
32 admission, according to DSM-IV criteria (11), was obtained from each medical record.  
33  
34 We grouped the main diagnoses into two groups (substance use disorders and non-  
35  
36 substance use disorders).  
37  
38

39  
40 Other clinical variables were related to the time (in months) the patients were treated in  
41  
42 the program and to the presence of inpatient admissions during their follow-up period.  
43  
44

### 45 **Statistical analyses**

46  
47 Chi-square tests were used to compare dichotomous variables between groups. Odds  
48  
49 ratios with 95% confidence intervals were used to analyze the relationship between  
50  
51 binary variables. Student's t-tests were used to compare quantitative variables. All  
52  
53 hypothesis tests were two-tailed and conducted with an alpha of 0.05.  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 A logistic regression analysis was conducted to analyze the type of referral using age,  
4 gender, and main diagnosis as independent factors. All analyses were performed using  
5 SPSS version 20 (Chicago, IL).  
6  
7  
8  
9

## 10 RESULTS

11  
12 Most doctors (83.2%) were self-referred to the program. Doctors with other types of  
13 referrals were older ( $\bar{x}$ =55.0; SD=11.68 years vs.  $\bar{x}$ =49.6; SD=11.97 years;  $t$ =6.96,  
14  $p<0.01$ ). More men (68.3%) than women (45.8%) were not self-referred (OR= 0.39;  
15 95% CI= 0.29-0.52). Self-referrals were more frequent among patients with non-  
16 substance use disorders (84.6%) than in those with addictive disorders (15.4%) being  
17 this difference statistically significant (OR=4.52; 95% CI= 3.23-28.45).  
18  
19

20  
21 Self-referred patients needed inpatient admissions less frequently (16.8%) compared to  
22 those with non-voluntary referrals (30.9%); once again such differences were  
23 statistically significant (OR=2.22; 95% CI=1.63–3.01). The length of treatment episodes  
24 was shorter for those identified as self-referred (mean=24.3; SD=28.42 months vs. mean  
25 =32.4; SD=32.4 months;  $t$ =3.34;  $p<0.01$ ).  
26  
27

28  
29 Logistic regression analysis showed a significant model (Chi-square=67.52; df=3;  
30  $p<0.001$ ). Age, gender and diagnosis were statistically associated with the type of  
31 referral (see Table 1).  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44

## 45 DISCUSSION

46  
47 This is the first study that compares the profile of doctors treated at a PHP according to  
48 their type of referral.  
49  
50

51  
52 Cross-country comparisons between PHPs are difficult. Data about other PHPs in the  
53 US [12] and Canada [13] mainly provide information about non-voluntarily referred  
54 sick doctors as a result of substance use disorders. In the UK, the Practitioner Health  
55  
56  
57  
58  
59  
60

1  
2  
3 Program [14] treated 554 practitioners and 20 other professionals during the 2008-2011  
4  
5 period, 85% for mental disorders, 28% for substance use disorders, and 17% for  
6  
7 physical problems. Regretfully, no information was available regarding the ways of  
8  
9 access to this program. However 29% of patients needed an intervention from the  
10  
11 Regulatory Body.[14] In Switzerland [8], during a three-year period, 80 patients were  
12  
13 treated at the ReMed program mainly for burn-out and depression (43%) followed by  
14  
15 practice and everyday life problems (32%) and only 13% for addictive behaviours. In  
16  
17 Norway [7], after analyzing the data of 227 doctors who had come for counselling to a  
18  
19 specific program designed for them, 73% were in need of treatment for anxiety and  
20  
21 depression. When analyzing the ways of accessing the program, only 45% were self-  
22  
23 referred. No information for cases needing mandatory treatment is available from  
24  
25 Switzerland and Norway PHPs [7-8].  
26  
27  
28

29  
30 Despite the differences between PHPs, mandatory actions in different countries have in  
31  
32 common that once **practice** problems are identified, sick doctors are obliged to undergo  
33  
34 psychiatric treatment and if they suffer from an addictive disorder they have to remain  
35  
36 abstinent. Otherwise, their license to practice will temporarily or definitively be  
37  
38 suspended [12-14].  
39

40  
41 In our PHP, we have observed that doctors are more likely **to be self-referred** when they  
42  
43 are women and suffer from non-substance use disorders. Those self-referred are also  
44  
45 younger when comparing to those whose way of access has been non-voluntary. These  
46  
47 results suggest that doctors with addiction problems tend to delay seeking help, maybe  
48  
49 because they fear the consequences of their demand [15]. In line with other studies,  
50  
51 women physicians are more likely to ask for help when they suffer from mental distress  
52  
53 than their male counterparts.[16]  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 However, the specific nature of our PHP should be taken into account when interpreting  
4  
5 our results. Patients may feel encouraged to seek help in our program where voluntary  
6  
7 referrals are promoted and mandatory actions are only applied to cases at risk or in  
8  
9 evidence of practice problems. Therefore, type of referral may be influenced not only by  
10  
11 the sick doctors' problems but also by each PHP's design including how it is presented  
12  
13 to service users.

14  
15  
16 Our group has recently suggested that a non-punitive philosophy for sick doctors may  
17  
18 encourage help seeking amongst them. Since it was created in 1998, self-referrals to the  
19  
20 Barcelona PHP have grown from 81.3% during the first years to 91.5% in the last  
21  
22 period.[17]

23  
24  
25 In the present study, doctors who came voluntarily had shorter treatment episodes and  
26  
27 needed less inpatient admissions than those with other forms of referrals. These findings  
28  
29 suggest a better prognosis for those users seeking help voluntarily compared to those  
30  
31 forced to enter the program.

32  
33  
34 The main limitations of this study are: a) it is a retrospective chart review; b) there was  
35  
36 only one main diagnosis for each patient not obtained after a structured interview, such  
37  
38 as the Structured Clinical Interview for DSM Disorders (SCID-I) (18); c) the lack of  
39  
40 personal and ecological variables from the users, as no data was available in terms of  
41  
42 personality traits and/or other psychosocial aspects possibly related to the type of  
43  
44 referral to our program.

45  
46  
47 Despite its limitations, the results of this study give some clues when attempting to  
48  
49 identify sick doctors with greater difficulties in asking for help from our PHP.  
50  
51 Destigmatizing doctors with addictions, enhancing help seeking among male  
52  
53 physicians, and encouraging self-identification of mental disorders from the early stages  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 of their Medical training could become effective preventive strategies within this  
4  
5 professional group.  
6

7  
8 On the other hand, our follow-up observations need to be taken into account from an  
9  
10 organizational perspective, as doctors with mental or emotional distress who are more  
11  
12 reluctant to ask for help from our PHP require additional clinical resources than those  
13  
14 who are motivated with their treatment.  
15

16  
17 Results from this study should be interpreted cautiously, especially when trying to  
18  
19 generalize our findings to other settings. The specific philosophy of our PHP is one  
20  
21 aspect to be considered. However, some features of sick doctors with difficulties in  
22  
23 seeking help may be similar to those observed in other PHPs. Therefore, preventive and  
24  
25 treatment strategies for sick doctors in all countries may benefit from taking into  
26  
27 account these findings.  
28  
29

### 30 **ACKNOWLEDGEMENTS**

31  
32  
33 We would like to thank Dr. Andrew Tresidder for his assistance with the English edition  
34  
35 of this manuscript.  
36

37  
38 We would also like to thank the members of Galatea Foundation and of the *Col·legi de*  
39  
40 *Metges de Barcelona* for their constant support in the development and maintenance of  
41  
42 our Physicians' Health Program.  
43  
44

### 45 **COMPETING INTERESTS**

46  
47 None declared.  
48  
49

### 50 **FUNDING**

51  
52 None declared.  
53  
54  
55  
56  
57  
58  
59  
60

## DATA SHARING STATEMENT

No additional data available.

## REFERENCES

1. Talbott GD, Martin CA. Treating impaired physicians: fourteen keys to success. *Virginia Medical* 1986; 113: 95–9.
2. DuPont RL, McLellan AT, Carr G, et al. How are addicted physicians treated? A national survey of Physician Health Programs. *J Subst Abuse Treat* 2009; 37: 1–7. doi: 10.1016/j.sat.2009.03.010
3. Dupont RL, Skipper GE. Six lessons from state physician health programs to promote long-term recovery. *J Psychoac Drugs* 2012; 44: 72–8.
4. Puddester DG. Canada responds: an explosion in doctors' health awareness, promotion and intervention. *Med J Aust* 2004; 181: 386–7.
5. Jurd SM. Helping addicted colleagues. *Med J Aust* 2004; 181: 400–2.
6. Oxley JR. Services for sick doctors in the UK. *Med J Aust* 2004; 181: 388-9.
7. Ro KEI, Gude T, Aasland OG. Does a self-referral counselling program reach doctors in need of help? A comparison with the general Norwegian doctor workforce. *BMC Public Health* 2007; 7:36.
8. Hegenbarth C. Rescuing doctors in distress. *CMAJ* 2011; 183: E153-E154. doi: 10.1503/cmaj.109-3760.
9. Bosch X. First impaired physicians therapy program appears to be successful in Spain. *JAMA* 2000; 283: 3186–7.
10. World Medical Association. World Medical Association Declaration of Helsinki. Ethical principles for Medical Research Involving Human Subjects. *JAMA* 2013;310: 2191-2194. doi: 10.1001/jama.2013.281053.

- 1  
2  
3 11. American Psychiatric Associations (2000). Diagnostic and Statistical Manual of  
4  
5 Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR). (Vol. 1).  
6  
7 Arlington, VA: American Psychiatric Association.  
8  
9 doi:10.1176/appi.books.9780890423349  
10
- 11  
12 12. McLellan AT, Skipper GS, Campbell M, et al. Five years outcomes in a cohort  
13  
14 study of physicians treated for substance use disorders in the United States. *BMJ*  
15  
16 2008; 337:a2038. doi: 10. 1136/bmj.a.2038.  
17
- 18  
19 13. Brewster JM, Kaufmann IM, Hutchison S, et al. Characteristics and outcomes of  
20  
21 doctors in a substance dependence monitoring programme in Canada:  
22  
23 prospective descriptive study. *BMJ* 2008; 337: a2098. doi: 10.1136/bmj.a2098.  
24
- 25  
26 14. NHS Practitioner Health Programme [Internet]. London: National Health  
27  
28 Service: 2011 report; 2011 [cited 2014 May 14]. Version No: 3. Available from:  
29  
30 [http://php.nhs.uk/wp-content/uploads/sites/26/2013/11/PHP-Three-Year-Report-](http://php.nhs.uk/wp-content/uploads/sites/26/2013/11/PHP-Three-Year-Report-Final-Version-3.pdf)  
31  
32 [Final-Version-3.pdf](http://php.nhs.uk/wp-content/uploads/sites/26/2013/11/PHP-Three-Year-Report-Final-Version-3.pdf)  
33
- 34  
35 15. Carinci A, Christo PJ. Physician Impairment: Is Recovery Feasible? *Pain Phys*  
36  
37 2009; 12: 487–491.  
38
- 39  
40 16. Firth-Cozens J. Doctors with difficulties: why so few women? *Postgrad Med J*  
41  
42 2008;84:318 –320.  
43
- 44  
45 17. Braquehais MD, Valero S, Matalí JL, Bel MJ, Montejo JE, Nasillo V, Arteman  
46  
47 A, Padros J, Bruguera E, Casas M. Promoting voluntary help-seeking among  
48  
49 doctors with mental disorders. *Int J Occup Med Environ Health* 2014; 27(3):1-9.  
50  
51 doi: 10.2478/s13382-014-0271-y  
52
- 53 18. First MB, Spitzer RL, Williams JBW, Gibbon M. Structured Clinical Interview  
54  
55 for DSM-IV (SCID-I) (User's Guide and Interview), Research Version, Non-

1  
2  
3 Patient Edition. New York: Biometrics Research Department, New York  
4  
5 Psychiatric Institute, 1995.  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60



**Table 1. Logistic regression analysis output of type of referral**

Variables	<i>B</i>	Wald	Sig.	OR (CI 95%)
Age	0.025	9.970	<.01	1.025 (1.010 – 1.042)
Gender (M/F)	-0.557	9.385	<.01	0.573 (0.401 – 0.818)
SUD vs. Non-SUD	-1.331	59.031	<0.001	0.264 (0.188- 0.371)
Constant	.298			

*Note.* Self-referral= 1; control group = 0; SUD=Substance Use Disorders.