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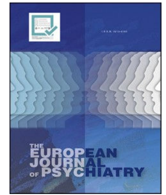

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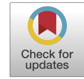

Burnout in mental health professionals and its relation with their attitudes towards mental illness

Francisco Del Olmo-Romero [a,b], Carlos Rebolleda-Gil [c], Pedro Varandas [d,e], Manuel Martín-Carrasco [f,g], María González-Blanco [h], Giampaolo Perna [i,j,k], Edith Pomarol-Clotet [f,l], Ana C. Martinez-Cabezón [m], Raúl Huerta-Ramírez [a], Raymond Salvador [f,l,*], The Inter NOS Working Group [1]

[a] Complejo Asistencial Benito Menni, Sisters Hospitallers, Madrid, Spain
[b] Clínica San Miguel, Sisters Hospitallers, Madrid, Spain
[c] Centro De Rehabilitacion Psicosocial Aranjuez, Línea De Rehabilitación, Sisters Hospitallers, Madrid, Spain
[d] Casa de Saúde da Idanha, Sisters Hospitallers, Lisbon, Portugal
[e] Clínica Psiquiátrica de S. José, Sisters Hospitallers, Lisbon, Portugal
[f] FIDMAG Research Foundation, Sisters Hospitallers, Barcelona, Spain
[g] Hospital Psiquiátrico Padre Menni, Hermanas Hospitalarias, Pamplona, Spain
[h] Miniresidencia Aravaca, Línea de Rehabilitación, Sisters Hospitallers, Madrid, Spain
[i] Vila San Benedetto, Sisters Hospitallers, Albese con Casano, Italy
[j] Department of Psychiatry and Neuropsychology, Maastricht University, the Netherlands
[k] Department of Psychiatry and Behavioral Sciences, Leonard Miller School of Medicine, University of Miami, USA
[l] CIBERSAM (Centro de Investigación Biomédica en Red de Salud Mental), ISCIII, Madrid, Spain
[m] Centro De Día Arturo Soria, Línea De Rehabilitación, Sisters Hospitallers, Madrid, Spain

A R T I C L E I N F O

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A B S T R A C T

Background and objectives: Staff burnout is a concern in the mental health field, in terms of its prevalence and its association with a range of undesirable outcomes. Recent research suggests there is a relationship between mental health professionals' (MHPs) burnout and stigmatizing attitudes towards their patients, probably leading to deleterious effects on the quality of their care. We measured burnout in a sample of professionals working in a wide range of mental health facilities in Spain, Portugal and Italy, and analyzed (1) its relationship with a set of relevant sociodemographic variables and (2) its influence on their stigmatizing attitudes.
Methods: We administered a survey including the Maslach Burnout Inventory (MBI) and two questionnaires related to stigmatizing attitudes: The Community Attitudes towards the Mentally Ill (CAMI) and the Attribution Questionnaire (AQ-27). Sociodemographics including information on profession, work setting and country were also registered.
Results: 1525 professionals of the surveyed population (34.06 %) completed the survey. Burnout scores were significantly related to many of the sociodemographic variables. Profession and country were the strongest and most consistently associated to the three dimensions of burnout (i.e., Emotional Exhaustion (EE), Depersonalization (Dp) and Personal Achievement (PA)) always with a $p < 0.001$. Fittings of linear models predicting stigmatizing attitudes from burnout pointed to PA as the most influential variable, being statistically significant for 11 of the 13 stigma variables, followed by both EE and Dp which were significant for 6 of the variables. Finally, higher adjusted R2 from the fitted models showed that burnout was more influential than profession, work setting or country in many of the stigma variables including Anger, Dangerousness, Fear, Help, Restrictiveness and Ideology.
Conclusion: Results from this study indicate that burnout of MHPs is related to a wide range of sociodemographic factors, with profession and country being remarkably significant. MHPs reporting higher burnout (especially lower personal achievement at work) have more negative attitudes towards their patients and support more coercive and restrictive approaches in their care. Staff burnout seems to explain most of their stigmatizing

* Corresponding author at: FIDMAG Research Foundation, Avinguda del Jordà, 8 08035, Barcelona, Spain.
E-mail address: rsalvador@fidmag.org (R. Salvador).
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attitudes more than personal and professional variables. Thus, interventions to diminish burnout might have a positive influence on mental health care. Future studies should include organizational variables, more specific scales for stigma in MHPs, and have a follow-up design.

Introduction

There is an increasing concern that mental health professionals (MHPs) might paradoxically contribute to the stigma and discrimination faced by people suffering from mental disorders.[1–3] Research has found evidence of some stigmatizing attitudes or behaviours of MHPs towards people suffering from mental disorders, and of their consequences on care provision.[4–7] Studies comparing beliefs, attitudes and opinions of mental health professionals towards mental illness with those of the public, have showed mixed results. Professionals share at least some of the public prejudices, and can be even more negative, particularly in terms of pessimistic outcomes, and support of restrictive measures.[8,9]

Those attitudes might have, in turn, significant consequences on clinical care. Actually, qualitative research show that users of mental health services complain of stigmatizing and discriminatory attitudes among professionals. This includes concerns over diagnostic labelling, therapeutic pessimism, poor informed consent, excessive focus on symptoms and pills, disinterest in personal data and physical complaints, and coercive attitudes.[10] Also, studies on clinicians' behaviours suggest that there is a correlation between their attitudes towards psychiatric patients and negative treatment decisions, such as labelling,[11] coercion,[12] and low referral to medical care.[13] There is enough evidence that user dissatisfaction with received services[14] and mental illness stigma hampers care seeking and undermines the mental health service system.[15] All these factors, among others,[16] may have profound consequences on service users, leading to hopelessness and suicidality.[17]

The sources and mechanisms underlying those negative attitudes and behaviours of MHPs are still a matter of debate.[5,7,12] Individual variables such as sociodemographic factors (e.g. sex, age and education) are considered to be relatively important in the general population,[18] but their relevance is less clear in MHPs.[5] On the other hand, it has been suggested that professional and cultural variables,[19] such as professional category,[20,21] work-setting,[22] and country[23] might influence attitudes more powerfully than personal factors.

Staff burnout has been an increasingly explanatory factor for professional attitudes in mental health care in recent years.[5] Recent reviews have showed a high burnout prevalence in MHP, influenced by general factors (individual and work-related), and specific factors of dealing with psychiatric suffering.[24–29] On the other hand, consequences of professional burnout on mental health patients also appear to be specific to the field. Emotional interactions between patients and professionals are an essential therapeutic tool in mental health care and their deterioration might be a core feature of burnout.[30] Many of those negative emotions and attitudes can be included in what is known as stigma towards people with mental illness. Despite all this, there are only few studies on the relationship between burnout in MHPs and negative attitudes towards patients.[31–38] These studies suggest a link between these variables, but only a minority of them have evaluated the negative attitudes with proper measures of stigma.

The present study is part of a research project set out by an international non-profit mental health organization with institutions and services across Europe and developing countries. The research project was named "Inter Nos" (Among Us, in Latin), as it is aimed at studying the stigmatizing attitudes in mental health care staff and ascertaining their relation to potentially relevant factors. We previously measured stigmatizing attitudes and their relation with professional and cultural factors including professional category, work setting and country.[19] However, in this first study, the impact of psychological factors of mental health workers on their stigmatizing attitudes was largely ignored. Burnout, a preventable work-related psychological syndrome, stands as a critical factor, due its high prevalence in MHPs, and its potential effect on their stigmatizing attitudes toward their patients. Given the effects of these attitudes, detection and reduction of burnout might potentially improve mental health care provision.

The aim of the current study is twofold. On the one hand, we plan to characterize the individual and professional factors that modulate the levels of burnout in MHPs. On the other hand, we want to quantify the effect of burnout on their self-reported stigmatizing attitudes, and to compare it with the effect of professional factors. We expect that burnout will be conditioned by a broad range of factors and that, in turn, it will have a significant influence on self-reported stigma levels.

When selecting measures for stigma, we followed Link's recommendations[39] which include good psychometric properties and evidence of validity in the studied population (i.e., MHPs) and in the languages used in the study (i.e., Spanish, Italian and Portuguese). Also, we decided to use two different scales from his review in order to cover complementary components of the stigma construct, i.e.: the cognitive, emotional and behavioural aspects. Firstly, we applied the *Attribution Questionnaire* (AQ-27), which is based on the Corrigan's attributional model of stigma. This model describes the emotional reactions and behavioural intentions to mental illness as contingent on the attribution of personal responsibility or control over having a mental disorder.[40,41] Secondly, we used *The Community Attitudes toward the Mentally Ill* (CAMI),[42,43] which measure the opinions (cognitions) towards people with mental illness and their community care.

Methods

Design and sample

The present work is part of a multinational, multicentre, cross-sectional survey for which an extensive description can be found in.[19] The study population consists of the staff of mental health institutions in Spain, Portugal and Italy belonging to the cited organization. It includes an estimated number of 4478 workers, located at 25 centres. They included a heterogeneous array of mental health services, hospital or community based.

Measures

The survey questionnaire included sociodemographic data, one scale measuring burnout (MBI), and two scales assessing attitudes toward mental illness (AQ-27 and CAMI). Sociodemographic data included personal variables (sex, age, education and years of experience in the profession) and professional variables (place of work, professional group, and country).

The *Maslach Burnout Inventory,* (MBI), in its version for Human Services (MBI-HSS) was used as the standard instrument to measure burnout[44] for health professionals.[45] The scale is composed of 22 items that describe the feelings and thoughts of professionals related to their work and the relationship with their users / patients. Its items are empirically grouped into three dimensions proposed in the definition of Burnout: a) Emotional Exhaustion (MBI-EE, 9 items) or emotional fatigue; b) Depersonalization (MBI-Dp, 5 items), involving distant and insensitive feelings towards individuals; and c) Personal Achievement (MBI-PA, 8 items), a dimension with reverse relation with burnout: when is low, is equated to negative self-evaluation of professional competence. These dimensions are assessed using a 7-point scale according to the frequency of the thought, ranging from 0 (never) to 6 (every day). Scores for each dimension are calculated separately, with

three continuous variables.[26,46] MBI is the most internationally used scale for studying burnout, and its reliability and internal consistency have been evaluated in multiple types of professionals, including mental health professionals.[26,44] It has also been validated into the languages used in the survey.[47–51]

The *Attribution Questionnaire* (AQ-27)[40,41] includes 27 items evaluating (in a 9-point scale) assertions related to a vignette depicting a case of schizophrenia. The questions are grouped into nine subscales of three questions, or factors based on this model: attribution of personal responsibility (AQ-Resp), leading to negative emotions (AQ-Anger, AQ-Danger and AQ-Fear) and to negative intentions (AQ-Avoidance, AQ-Segregation and AQ-Coercion). On the other hand, positive emotions (AQ-Pity) leading to positive intentions (AQ-Help). The AQ-27 scale has shown good levels of internal consistency and construct validity.[41] This scale has been used in the general public[52,53] and in MHPs.[54] Validated versions in the languages of the study[52–55] were used.

The Community Attitudes toward the Mentally Ill (CAMI) have 40 items, measured on a 5-point scale. The 40 questions are grouped into four factors of 10 questions, thus scoring from 10 to 50 points. Two factors are negative: (1) Authoritarianism (CAMI-A, a view of the mentally ill as requiring obedience); and (2) Social Restrictiveness (CAMI-SR, a view as requiring restrictions). The two other factors are positive: (3) Benevolence (CAMI-B, an humanistic and sympathetic view); and (4) Community Mental Health Ideology (CAMI-CMHI, or acceptance of deinstitutionalized care). The original scale possesses good levels of internal consistency and construct validity.[42,43] It has been applied to the general population and to MHPs.[22,23,56–60] It has been validated in the three used languages.[61–63] Notwithstanding, the Spanish version,[63] was unavailable when our study was planned, so the original version was obtained from the author and translated (with back-translation and an assessment of its face-validity).

Data collection

All staff at the centres involved was invited to participate voluntarily in an anonymous survey. The survey could be completed in paper or in electronic format through a web page.

Statistical analyses

Apart from calculating the initial univariate descriptive statistics on the different variables involved in the study, the following analyses were carried out to pursue the two objectives of the study:

(1) For the first objective (i.e. to characterize the factors that modulate the levels of burnout in mental health professionals) we carried out bivariate analyses between each of the three MBI subscales and each recorded sociodemographic and professional variable. When the later were continuous or ordinal we used Spearman correlations and when they were categorical we used standard T tests and one way ANOVAs.

(2) For the second objective (i.e. to quantify the effect of burnout on self-reported stigmatizing attitudes) we fit linear models with stigma scores as dependent variables, and the three burnout scores (MBI-EE, MBI-Dp, MBI-PA) as independent variables, also adjusting for sociodemographic variables (age, gender, working experience, assessment format and level of education). The strength of the link between each MBI score and the stigma score was quantified with the standardized regression coefficient (standardized beta) which quantifies the weight of the MBI score in the $[-1, 1]$ interval. Additionally, the overall strength of each model was estimated with the adjusted R^2 (which quantifies the proportion of the variance of the stigma variable that is explained by the linear model).

A threshold of $p < 0.05$ was considered as significant in all analyses, which were carried out with the R software (https://www.r-project.org).

Results

Sample sociodemographics

From the estimated number of 4478 workers, 1729 (38,61 %) answered the survey and, after excluding incomplete forms, 1525 questionnaires (34.06 % response rate) were included in the statistical analysis from which 995 (65.2 %) completed the survey online, and 531 (34.8 %) were handwritten. Response rates varied according to country (Spain: 34.2 %; Portugal: 30.3 % and Italy: 52.2 %) and work setting (hospital: 27.2 %; community: 60 %).

General statistics on sociodemographics are reported in the second column of Table 1. The majority of respondents were female (75 %) and the average age of the whole sample was 39 years. 54 % of participants had university degrees (from whom 45 % also had postgraduate studies) while the remaining had primary education (10 %) and secondary studies (35 %). Most professionals worked in a hospital-based setting (63 %) while the rest worked in various community resources: 6.56 % in outpatient or mental health centres, 9.84 % in community rehabilitation or day centres, 7.08 % in community residential facilities and 13.38 % in other community resources. Working experience spanned, on average, 11.5 years. According to professional category participants were grouped into non-clinical professionals (13.2 %), psychiatrists (6.4 %), psychologists (10.4 %), social therapists (13.3 %), nurses (15.2 %), nursing assistants (23.7 %), and other clinical staff (13.2 %). From the total sample 65.9 % were Spanish, 25.7 % Portuguese and 8.4 % Italian.

Burnout scores and their association with sociodemographic variables

Average scores for the three dimensions of burnout were 19.71 (SD=10.29) for MBI-EE, 6.99 (SD=4.83) for MBI-Dp and 42.68 (SD=8.89) for MBI-PA. Results from analyses quantifying the relation of the three burnout scores with each one of the sociodemographic variables are reported in Table 1. Significant differences in MBI-EE scores were found between professions (ANOVA $F = 6.33$, $p < 0.001$), with Psychiatrists and Nursing assistants showing the highest levels of emotional exhaustion (EE of 22.14 and 21.98) and Non-clinical staff and Psychologists having the lowest (EE of 17.70 and 18.31). Countries also differ in their levels of emotional exhaustion (ANOVA $F = 60.31$, $p < 0.001$) with Spain showing the highest average level (EE = 21.66) and Italy the lowest (EE = 18.30). Pairwise significant differences delivered by the Tukey post-hoc test are provided as *supplementary material.*

When analyzing associations with the MBI-Dp significant results were found for all sociodemographic variables considered. Thus, levels of depersonalization increased with age ($r = 0.09$, $p = 0.001$) and with years of experience ($r = 0.08$, $p = 0.002$). They were also higher in males than in females ($t = -2.64$, $p = 0.008$), in individuals with a university degree ($t = -4.78$, $p < 0.001$) and in subjects working in Hospitals ($t = 5.41$, $p < 0.001$). Nursing assistants and Psychiatrists were the two groups having the highest levels of depersonalization (average Dp of 8.65 and 8.31) and psychologists and Social Therapists the lowest (average Dp of 4.91 and 5.89) (ANOVA $F = 16.85$, $p < 0.001$). Mean Dp was highest in Spain (7.61) and lowest in Portugal (5.66) (ANOVA $F = 25.86$, $p < 0.001$). See the *supplementary material* for results on post hoc tests.

Finally, personal achievement (MBI-PA) was negatively associated with age ($r = -0.06$, $p = 0.025$) and years of experience ($r = -0.06$, $p = 0.022$), showing differences among professions, with Non-clinical staff clearly having the lowest levels (PA of 38.50) and Nursing assistants, Nurses and Social Therapists showing the highest (PAs of 44.71, 43.45 and 43.37 respectively) (ANOVA $F = 11.68$, $p < 0.001$). Countries also had significant differences in PA (ANOVA $F = 29.76$, $p < 0.001$). Spain featured the highest levels of PA (mean of 43.80) and Italy the lowest

Table 1
Descriptive statistics for the different sociodemographic variables registered in the survey are shown in the second column. Results from their association with the three MBI subscales (Emotional Exhaustion, Depersonalization and Personal Achievement) are shown in the remaining columns. Means and standard deviations (in brackets) are provided for quantitative variables. Associations between any two quantitative variables are estimated with Spearman correlations (r). Group differences are tested with t tests and one-way ANOVAs. P-values (p) are shown for each performed test.

	Socio demographics	Emotional Exhaustion (EE)	test	Depersonalization (Dp)	test	Personal Achievement (PA)	test
Age	39.17 (10.04)	$r = -0.03$	$p = 0.243$	$r = 0.09$	$p = 0.001$	$r = -0.06$	$p = 0.025$
Sex	**Woman** ($N = 1146$)	19.53 (10.33)	$t = -1.21$	6.80 (4.78)	$t = -2.64$	42.79 (8.85)	$t = 0.87$
	Man ($N = 379$)	20.26 (10.17)	$p = 0.227$	7.56 (4.92)	$p = 0.008$	42.33 (9.02)	$p = 0.386$
Level of education (University Degree)	**Yes** ($N = 829$)	19.51 (10.05)	$t =- 0.83$	6.45 (4.91)	$t = - 4.78$	42.43 (8.16)	$t = -1.15$
	No ($N = 696$)	19.96 (10.58)	$p = 0.407$	7.63 (4.65)	$p < 0.001$	42.97 (9.70)	$p = 0.245$
Years of experience	11.47 (8.70)	$r = 0.02$	$p = 0.395$	$r = 0.08$	$p = 0.002$	$r = -0.06$	$p = 0.022$
Profession	**Psychiatrists** ($N = 97$)	22.14 (11.69)	$F = 6.33$	8.31 (5.75)	$F = 16.85$	42.08 (8.22)	$F = 11.68$
	Psychologists ($N = 159$)	18.31 (9.72)	$p < 0.001$	4.91 (4.10)	$p < 0.001$	42.62 (6.75)	$p < 0.001$
	Nurses ($N = 232$)	18.62 (9.44)		6.81 (4.51)		43.45 (7.92)	
	Nursing assistants ($N = 361$)	21.98 (10.85)		8.65 (4.99)		44.71 (9.34)	
	Social Therapists ($N = 203$)	19.77 (9.62)		5.89 (4.28)		43.37 (6.94)	
	Other clinical ($N = 272$)	19.04 (10.16)		7.03 (4.44)		42.11 (9.80)	
	Non-clinical ($N = 201$)	17.70 (9.95)		6.25 (4.87)		38.50 (10.01)	
Work Setting	**Hospital** ($N = 963$)	20.09 (10.56)	$t = 1.91$	7.48 (4.94)	$t = 5.41$	42.81 (9.23)	$t = 0.82$
	Community ($N = 562$)	19.06 (9.80)	$p = 0.056$	6.14 (4.51)	$p < 0.001$	42.44 (8.28)	$p = 0.413$
Country	**Spain** ($N = 1005$)	21.63 (10.35)	$F = 60.31$	7.61 (4.90)	$F = 25.86$	43.80 (8.66)	$F = 29.76$
	Portugal ($N = 392$)	15.18 (8.68)	$p < 0.001$	5.66 (4.29)	$p < 0.001$	41.22 (8.58)	$p < 0.001$
	Italy ($N = 128$)	18.30 (9.84)		6.13 (4.84)		38.30 (9.72)	

(mean of 38.30). Pairwise significances are provided as *supplementary material*.

Burnout influence on stigmatizing attitudes

Standardized betas for the three burnout subscales included as independent variables in the linear models predicting stigma are listed in Table 2. Personal Achievement (MBI-PA) came out as the most influential burnout variable, as it was significant in most (11 out of 13) of the linear models involving both AQ-27 and CAMI variables (with the exception of Responsibility and Coercion), and had the strongest relations (Beta scores between 0,12 and 0,32) . As expected, betas had a positive weight on positive emotions and attitudes (i.e. AQ-Pity, AQ-Help) and positive opinions (CAMI- Benevolence and CAMI-Ideology). Also, they had a negative weight on all negative emotions (AQ-Anger, AQ-Danger, and AQ-Fear), the negative attitudes (AQ- Coerc, AQ-Segreg., AQ-Avoid) and the negative opinions (CAMI-A, CAMI-SR)

Emotional exhaustion (MBI-EE) had a less prevalent influence, being significant in 6 of the 13 linear models, and with less strength (Betas 0,12 to 0,15). It had a positive weight on the negative emotions (Anger, Danger and Fear), one negative attitude (Coercion) and one negative opinion (Restrictiveness). Finally, Depersonalization (MBI-Dp), although also in the expected direction, it was the least influential on stigma, It was also significant in 6 of the linear models, but with the weakest strength (Betas 0,08 to 0,12). It was positively related with negative emotions (Anger, Danger), and with two negative attitudes (Segregation and Avoidance) and negatively related to one positive opinion (Ideology).

Adjusted R^2 values of the fitted models are plotted in Fig. 1. These quantify the proportion of the variability of each stigma variable explained by the independent variables (i.e. both burnout and professional variables). Fig. 1 also shows the Adjusted R^2 values from models fitted in the previous study evaluating the effect of profession, work setting and country.[19] Since all models adjusted for the same professional factors, R^2 values are comparable between models dealing with the same stigma variable. From Fig. 1 it may be inferred that negative emotions [Anger (adj-R^2=0.10), Dangerousness (adj-R^2=0,11), Fear (adj-R^2=0.11)] and Help (adj-R^2=0.11) from the AQ-27, and Restrictiveness (adj-R^2=0.18) and Mental Health Ideology (adj-R^2=0.14) from the CAMI are more strongly modulated by burnout than by the professional variables (i.e. profession, work setting and country). In the remaining stigma subscales, adjusted-R^2 values from burnout models for stigma were similar to those observed with these variables.

Discussion

The first aim of the present study was to characterize the factors that modulate the level of burnout in our sample of MHPs. Results from this study indicate that burnout is modulated by all of the sociodemographic and professional factors studied. Regarding individual factors, having more burnout is related to being older and more experienced (higher Dp and lower PA), being male, and not having university degree (higher Dp). However, these relations are quite weak, with $r < 0.1$. This is in line with the contradictory results found in the literature regarding the

Table 2
Standardized regression coefficients (standardized betas) from linear models combining the three MBI scores (EE, Dp and PA) as independent variables for prediction of stigmatizing attitudes as quantified by items from the AQ-27 and CAMI. Statistical significance of coefficients (p-values) are shown within brackets. Models were also adjusted for several sociodemographic variables (see methods section).

AQ-27	MBI-EE	MBI-Dp	MBI-PA
Responsiblity	0.026 (0.394)	0.070 (0.036*)	0.026 (0.347)
Pity	0.093 (0.002**)	0.060 (0.076)	0.126 (<0.001***)
Anger	0.120 (<0.001***)	0.127 (<0.001***)	−0.179 (<0.001***)
Dangerousness	0.154 (<0.001***)	0.081 (0.011*)	−0.156 (<0.001***)
Fear	0.123 (<0.001***)	0.005 (0.878)	−0.200 (<0.001***)
Help	−0.024 (0.409)	−0.063 (0.051)	0.319 (<0.001***)
Coercion	0.129 (<0.001***)	0.016 (0.620)	0.022 (0.423)
Segregation	0.043 (0.126)	0.089 (0.005**)	−0.099 (<0.001***)
Avoidance	0.049 (0.099)	0.118 (<0.001***)	−0.190 (<0.001***)
CAMI	**EE**	**Dp**	**PA**
Authoritarianism	0.017 (0.560)	−0.046 (0.149)	−0.123 (<0.001***)
Benevolence	0.016 (0.587)	−0.042 (0.184)	0.226 (<0.001***)
Restrictiveness	0.112 (<0.001***)	0.039 (0.203)	−0.257 (<0.001***)
Ideology	−0.010 (0.717)	−0.086 (0.006**)	0.259 (<0.001***)

relation between individual factors and burnout of mental health professionals.[24–26,64]

On the other hand, the relation of professional factors (especially work category and country) is stronger, affecting all dimensions of burnout. Professional category is significantly and clearly related to EE, Dp and PA. Among clinical staff, psychiatrists seem to be the most consistently affected by burnout, since they have the highest levels of EE, the second highest in DP, and the lowest in PA. Nursing assistants are also the most affected by EE and DP, but interestingly, they are, as well, the highest on PA. In contrast, social therapists and registered nurses have lower levels of EE and DP, and higher PA. Interestingly, psychologists have the lowest levels of EE and DP among clinical professionals, but their levels of PA were relatively low.

Some of our results comparing burnout between different MHPs are in consonance with previous studies. They also indicate that nurses (including non-registered staff) had the highest EE, and psychologists the lowest DP. However, the reviewer of these studies[26] acknowledge that they were UK samples, with different professional competences and, thus, difficult to generalize. On the other hand, in order to interpret the results appropriately it is important to keep in mind that the three dimensions of burnout measure distinct constructs with different determinants. Exhaustion and depersonalization seem to be more related to the specific demands of psychiatric patients while accomplishment is related to less specific organizational factors, such as the relationship with superiors.[26,30]

Country is also a significant professional variable most clearly affecting all dimensions of burnout. Spanish professionals from our sample seem to be the most affected by exhaustion and depersonalization, but, at the same time, they felt the most accomplished at work. We only found two studies comparing burnout in psychiatric nurses from different European countries.[65,66] They also reported large differences between countries, mainly for organizational reasons.

Our analyses show that burnout is predictive of stigmatizing attitudes in mental health professionals. Low Personal Achievement is the most relevant dimension because it correlates more strongly and with most stigmatizing emotions, attitudes and opinions. Exhaustion and Depersonalization are also related to all negative emotions and to some

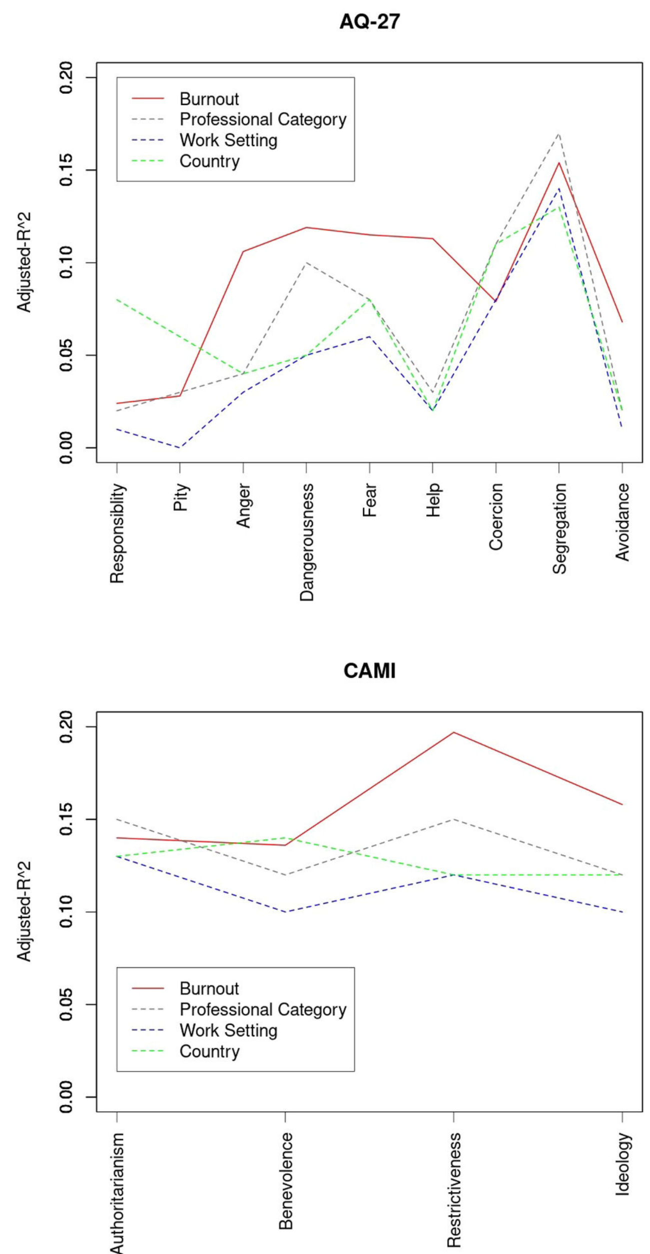

Fig. 1. Plots of adjusted-R^2 values from models containing the burnout scores (plus adjusting covariates) as predictors of stigma (continuous red lines). Adjusted-R^2 values from equivalent models quantifying the influence of professional category, work setting and country on these same stigma variables are also shown for comparison purposes (values extracted from a previous study[19]).

of the negative attitudes and opinions.

These findings suggest that MHPs with higher levels of burnout have more negative emotions toward their patients, and they support more coercive and segregating approaches in their care. These results are in consonance with those found in previous studies in different countries.[31–38,67,68] The relative relevance of the PA was also stressed in an Italian study.[36] They hypothesized that this dimension is related to the sense of commitment to onés job, so it is also related to involvement with patients, with low MBI-PA being linked to negative attitudes towards them. Our results also suggest that burnout is the most influential variable in explaining stigmatizing attitudes compared to staffs professional factors, such as work-setting, category, and nationality.

There are several limitations in our study. First, this study is devoted to measure the attitudes of the staff belonging to a single mental health

organization. Thus, its results have limited generalizability to other MHPs even from the countries studied. Secondly, we did not include work-related organizational factors, such as work demands, role clarity, recognition, supervision, etc. According to the literature, these variables seem to explain burnout more than other factors.[24–26,64] It is also possible that these organizational variables lie behind the differences by profession and country that we see in our study.

Third, the strength of the influence of burnout in stigmatizing attitudes seem to be low to moderate. It might be that there are other variables explaining negative attitudes. For example, several studies have shown that associative stigma- i.e., the prejudice experienced by MHPs due to their relationship with their stigmatized patients[69] is positively related to burnout, and mediates stigmatizing attitudes.[70,71]

Another limitation of the study is that its design does not allow ascertaining the direction of the relationship between burnout and stigmatizing attitudes. Some previous research has used complex statistical models, suggesting that it is burnout that produce the negative attitudes.[31,36,68] These studies, however, carry the same limitations of cross-sectional surveys than ours.

Lastly, another problem relates to the validity of the stigma measures in mental health professionals. We tried to minimize this limitation by using two scales based on different, but putatively complementary, paradigms. Nevertheless, recently, some scales have been specifically designed for measuring stigmatizing attitudes in health and mental health professionals[72] and they should be used preferentially in the future.

Conclusion

Results from this study indicate that burnout is related to a wide range of sociodemographic factors, with profession and country being remarkably significant. In turn, burnout is predictive of stigmatizing attitudes in MHPs, with the Personal Achievement dimension being especially relevant. Our results also suggest that, for many of the stigma variables, burnout is more influential than profession, work setting or country.

Those results are important given the deleterious effect of stigmatizing attitudes on service users, already described in the introduction. It is suggested there that prevention and reduction of professionals' burnout might improve mental health provision. Different levels of intervention have been proposed for the different dimensions of burnout. Individual interventions, such as moderating workload or improving coping strategies, aim at reducing exhaustion and depersonalization. Organizational interventions, such as increasing recognition, supervision and role clarity, seem to be best suited for improving personal achievement.[26,30,46] Professionals more affected by burnout (psychiatrists and nursing assistants in our sample) should be prioritized.

Future studies should include other variables relevant to burnout, such as the organizational factors. They may also incorporate aspects related to negative attitudes like the associative stigma perceived by professionals. Alternative study designs, such as longitudinal follow-ups, may also shed light on the direction of the relationship between burnout and negative attitudes and on the underlying mechanisms leading to deleterious effects on users. Finally, the use of scales specifically designed for measuring stigmatizing attitudes in mental health professionals will increase, as well, the validity of results.

Declaration of competing interest

The authors declare that they have no conflict of interest.

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THE INTER NOS WORKING GROUP included professionals of Sisters Hospitallers that collaborated as key managers of research at every centre:

Ana Moreno-Alcazar: *FIDMAG Hermanas Hospitalarias Research Foundation, Barcelona, Spain*

Isabel Feria: *FIDMAG Hermanas Hospitalarias Research Foundation, Barcelona, Spain*

Salvador Sarró: *FIDMAG Hermanas Hospitalarias Research Foundation, Barcelona, Spain*

Pedro P. Padilla: *Centro Neuropsiquiátrico Nuestra Sra. Del Carmen, Hermanas Hospitalarias, Zaragoza, Spain*

José A. Larraz: *Hospital Sagrat Cor, Hermanas Hospitalarias, Martorell, Spain*

Josep Treserra: Benito Menni Complex Assistencial en Salut Mental, *Hermanas Hospitalarias, Sant Boi de Llobregat, Barcelona, Spain*

Ana C. Pérez: Hospital Sant Rafael, *Hermanas Hospitalarias, Barcelona, Spain*

Pedro Roy: Hospital Mare de Déu de la Mercé, *Hermanas Hospitalarias, Barcelona, Spain*

Ana Morais: Casa de Saúde da Idanha, *Irmãs Hospitaleiras*, Lisbon, Portugal

Carla Costa: Casa de Saúde Bento Menni, Irmãs Hospitaleiras, Guarda, Portugal

Cecília Vilas- Boas: Casa de Saúde do Bom Jesus, Irmãs Hospitaleiras, Braga, Portugal

Mariana Correia: Casa de Saúde do Espírito Santo, *Irmãs Hospitaleiras*, Angra do Heroísmo (Azores), Portugal

Nuno Nunes : Casa de Saúde N. Sra. da Conceição, *Irmãs Hospitaleiras*, Ponta Delgada (Azores), Portugal

Rosa Simões : Casa de Saúde Rainha Santa Isabel, *Irmãs Hospitaleiras*, Condeixa-a-Nova, Portugal

Paula Carneiro : *Irmãs Hospitaleiras*, Lisbon, Portugal

Jaime Grácio: *Nova Medical School/Faculdade De Ciências Médicas, Universidade Nova De Lisboa, Lisbon, Portugal*

Adolfo Lander: Hospital Aita Menni, Hermanas Hospitalarias, Mondragón, Spain

Javier Remirez: *Hospital Psiquiátrico Padre Menni , Hermanas Hospitalarias, Pamplona, Spain*

Javier Arellano: *Complejo Hospitalario San Luís , Hermanas Hospitalarias, Palencia, Spain*

Carlos V. Pajares: *Centro Hospitalario Padre Menni, Hermanas Hospitalarias, Santander, Spain*

Antonio Rodríguez: *Centro Hospitalario Benito Menni, Hermanas Hospitalarias , Valladolid, Spain*

Javier Ballesteros-Rodríguez: *University of the Basque Country, UPV/EHU, Leioa, Spain*

Eduardo González-Fraile: *International University of La Rioja (UNIR), Logroño, Spain.*

María Jáñez: *Clinica San Miguel, Hermanas Hospitalarias, Madrid, Spain*

David Porta: *Complejo Asistencial Málaga, Hermanas Hospitalarias, Málaga, Spain*

Giovanna Vanni; *Vila San Benedetto, Sisters Hospitallers, Albese con Casano, Italy*

Alessandro Valchera: Villa San Giuseppe, *Suore Ospedaliere,* Ascoli, Italy

Paolo Carbonetti: Casa di Cura Villa Rosa, *Suore Ospedaliere, Viterbo*, Italy

Ethical issues

Permission for the study was obtained accordingly with local committees. Formal ethical approval was not deemed necessary under the laws of any of the implicated countries, since this study was concerned with staff and did not involve any intervention in participants' health. Informed consent stressed that participation was voluntary and anonymous and that all information was confidentially stored.

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Supplementary materials

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