

ORIGINAL

## Training mental health residents in tobacco and alcohol: Relationship with their clinical intervention

### *Formación en tabaco y alcohol de residentes de salud mental: Relación con su intervención clínica*

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#### Abstract

The objective of this study is to describe how mental health professionals in training (residents) apply the brief intervention (5As) on the tobacco and alcohol consumption to their patients, and if this is related to the training received and/or their own consumption. This is a cross-sectional study in which a self-reported questionnaire was administered to first-year residents of mental health professionals in Catalonia (2016-2019) (psychiatrists, psychologists and nurses). We performed a descriptive analysis of the variables and we applied a chi-square test for the comparison of proportions. 154 professionals completed the questionnaire. Half of them had not received any university training on intervention in smoking (46.8%) or in alcohol consumption (53.2%). Those who had received it, advised, assessed and helped their patients to quit smoking more frequently ( $p = 0.008$ ,  $p = 0.037$  and  $p = 0.039$ , respectively). Those who had received training in alcohol intervention gave advice, performed assessments and offered help to quit/reduce alcohol among their patients more frequently ( $p < 0.001$ ,  $p = 0.001$ , and  $p < 0.001$ , respectively). Residents usually helped more to quit or reduce alcohol than to quit tobacco ( $p < 0.001$ ). 60.1% of them never or rarely helped their patients

#### Resumen

El objetivo del estudio es analizar la intervención breve 5As en tabaco y alcohol de los profesionales sanitarios residentes de salud mental y analizar su relación con la formación recibida y/o con su propio consumo. Se trata de un estudio transversal en el que se administró un cuestionario autoinformado a residentes de primer año de salud mental de Cataluña de 2016 a 2019 (médicos, psicólogos y enfermeras). Se realizó un análisis descriptivo de las variables y comparación de proporciones a través de pruebas chi-cuadrado. Contestaron 154 profesionales, la mitad no había recibido ninguna formación universitaria sobre intervención en tabaquismo (46,8%), ni en consumo de alcohol (53,2%). Los que sí la habían recibido, aconsejaban, evaluaban y ayudaban a dejar de fumar a sus pacientes con mayor frecuencia ( $p = 0,008$ ,  $p = 0,037$  y  $p = 0,039$ ; respectivamente). Los que habían recibido formación en alcohol, aplicaban más consejo, evaluación y deshabitación sobre el alcohol a sus pacientes ( $p < 0,001$ ;  $p = 0,001$ ; y  $p < 0,001$ ; respectivamente). En global, ayudaban más a dejar o reducir el alcohol que el tabaco ( $p < 0,001$ ). Un 60,1% de todos ellos nunca o raramente ayudaba a sus pacientes a dejar de fumar y un 34,6% en el caso

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to stop smoking and 34.6% rarely helped in the case of alcohol. In general, nurses did more intervention for tobacco than alcohol use, regardless of the training received. The lack of training of professionals in tobacco and alcohol intervention at university is related to a lack of intervention on patients in their professional practice, regardless of their own consumption.

**Keywords:** teaching, internship and residency, tobacco, alcohol drinking, mental health

Two of the most important causes of morbidity and mortality in developed countries are tobacco and alcohol consumption (WHO, 2009; WHO, 2018). Patients with psychiatric pathologies have a much higher prevalence of smoking than the general population (Guydish et al., 2011; Lasser et al., 2000). There is evidence regarding the relationship between smoking and reduced life expectancy in psychiatric patients (Colton & Manderscheid, 2006) and the exacerbation of their psychiatric pathology (Jones, Thornicroft, Coffey & Dunn, 1995; Montoya, Herbeck, Svikis & Pincus, 2005). It is also observed that patients with mental illnesses are more vulnerable to risky alcohol use (Arias et al., 2016), with the consequence of worsening progression of their psychiatric pathology (Vanable, Carey, Carey & Maisto, 2003) and significant deterioration of their physical health (Gual, Bravo, Lligona & Colom, 2009). One of the main obstacles that smokers must overcome in quitting is the lack of motivation to do so. For this reason, the advice of a health professional plays an important role in smoking abstinence and in reducing risky drinking. The brief intervention proposed by the WHO, based on the 5As (Ask: ask about use; Advise: advise to quit/cut down; Assess: assess readiness to change; Assist: help with change; Arrange: agree on follow-up) and implemented by health professionals, has shown efficacy in changing smoking and drinking behaviour (Fiore et al., 2008; Kaner et al., 2009) and should be a priority with this group of patients. The social acceptance historically enjoyed by alcohol and tobacco in our culture hinders the perception of risk in the general population, an inadequate perception often shared by some health professionals. If we add the shortage of training in the university system regarding addictions (Richmond, Zwar, Taylor, Hunnisett & Hyslop, 2009), all this could explain a lack of involvement of health professionals in addressing these issues (Carson et al., 2012). The use of tobacco and alcohol by health professionals themselves could also have a significant impact, both in maintaining the social acceptance of these behaviours, given the role model potential these professions have at a social level, and in terms of the interventions in their professional practice. Numerous studies have shown that health professionals who smoke are less involved and do implement fewer interventions with their patients than non-smokers, including minimal counselling, and

del alcohol. Las enfermeras intervenían más en tabaquismo que en alcohol, hubieran recibido o no formación universitaria. El estudio concluye que la poca formación universitaria recibida por los profesionales se asocia con una frecuencia baja de intervención sobre sus pacientes, sin que exista relación entre el nivel de intervención y su propio consumo.

**Palabras clave:** enseñanza, internado y residencia, tabaco, consumo de bebidas alcohólicas, salud mental

that when they do, they obtain worse results (Juárez-Jiménez, Pérez-Milena, Valverde-Bolívar & Rosa-Garrido, 2015a). On the other hand, there appear to be no studies specifically linking the university education received to the level of tobacco and alcohol intervention. Few studies suggest that such intervention occurs more frequently when the professional feels more trained in these fields (Herrero, Segura, Martínez, García & Torre, 2018; Zafra-Ramírez, Pérez-Milena, Valverde-Bolívar, Rodríguez-Bayón & Delgado-Rodríguez, 2019).

The objective of this study was therefore to describe the intervention of professionals with specialized health training (residents) in mental health on tobacco and alcohol use, and to analyze whether their intervention is related to the training they received at university, to their professional role, and/or to their own use of tobacco and alcohol.

## Methods

A cross-sectional observational study was carried out using a self-reported questionnaire administered in May 2016, 2017, 2018 and 2019. The target population was all first-year resident health professionals in the field of mental health in Catalonia (graduates in Medicine specializing in Psychiatry, in Psychology majoring in clinical psychology, and graduates in Nursing majoring in mental health). In Spain, the specialty in mental health is exclusively carried out by doctors, psychologists and nurses. The target population thus consisted of 363 first-year residents (from 2016 to 2019) in psychiatry, clinical psychology, and specialist mental health nursing.

The anonymous questionnaire was distributed just before the start of a joint training session (three hours) of compulsory attendance for all first-year residents in the three specialties on dealing with smoking and alcohol. The questionnaire was drawn up ad hoc by a multidisciplinary group of experts and comprised 27 items including: sociodemographic data (3 items); training received on smoking and alcohol during their university degree (3 items); intervention usually carried out with their patients on smoking (6 items) and alcohol (6 items), based on the 5As intervention recommended by the WHO. For each of the 5A intervention actions, five response options were offered depending on whether they performed that action “Always”, “Frequently”, “Sometimes”, “Rarely” or “Never”. Questions about the professional’s own smoking

and drinking habits were also included in the questionnaire, with the level of dependence on tobacco assessed using the Heaviness of Smoking Index (HSI) (Heatherton, Kozlowski, Frecker, Rickert & Robinson, 1989) and the AUDIT test for alcohol dependence (Péruña de Torres et al., 2005). Alcohol consumption was described in Standard Drink Units (SDUs), with 1 SDU equivalent to 10 g of alcohol.

The descriptive analysis of the main variables included the frequency and percentage of qualitative variables and the mean and standard deviation of quantitative variables. To compare proportions, the chi square test was used, with statistical significance set at  $p < 0.05$ . The five response options for each of the 5As intervention actions were grouped into three categories: “Always/Frequently”, “Sometimes” and “Never/Rarely”.

The work was carried out in accordance with the Code of Ethics of the World Medical Association (Declaration of Helsinki of 1975).

All analyses were carried out with the SPSS 20.0 statistical package (SPSS Inc, Chicago IL, USA).

## Results

Of the 363 first-year residents in mental health (from 2016, 2017, 2018 and 2019), 169 participated in the smoking and alcohol training sessions. Completed questionnaires were obtained from 154 (50 doctors, 38 psychologists and 66 nurses), with a response rate of 91.1%. The year-by-year distribution was 44 in 2016, 48 in 2017, 29 in 2018 and 33 in 2019, with no differences in the distribution by profession (data not shown).

As shown in Table 1, mean age was 26.5 years (SD: 3.8); 78.8% were women, 16.3% were smokers (18.4% psychologists, 18.4% doctors and 13.6% nurses). According to the HSI, 90% had low dependency and 10% medium dependency. The mean number of attempts to quit smoking among all smokers was 1.3 (SD: 1.1) and 25.7% had never made any attempt. Regarding alcohol, 79.1% (85.7% physicians, 78.9% psychologists and 74.2% nurses) reported drinking, although moderately, with an average of 3 SDUs on non-working days and 0.4 on working days. No significant differences between men and women were found in levels of smoking or drinking (data not shown).

Regarding training received as part of their university studies, 46.8% did not receive any training in smoking cessation intervention, with nurses receiving the most training (59.1% had training). As for training in alcohol intervention, 53.2% reported not having received any training, with nurses having the least (36.4%) and psychologists the most (55.3%) training. As for other drugs, only 37.0% received training (Table 1).

Regarding intervention in their workplace, we observed that, overall, there was much more intervention in alcohol than in smoking at all levels of intervention (Table 2).

Similarly, a comparative analysis was carried out between the different levels of intervention and the training received. The results showed that in both smoking and alcohol, there was no relationship between the training received and the frequency with which they asked questions and recorded consumption. However, levels of advising, assessing the readiness to quit and helping to quit showed clearly significant differences depending on the training received, both in smoking and alcohol. That is, in residents who did not receive training during their university studies there was a lower frequency of intervention: whether advising ( $p = 0.008$  and  $p < 0.001$  for smoking and alcohol, respectively), assessing the patients readiness to change ( $p = 0.037$  and  $p = 0.001$ ), as well as helping them to change with precise guidelines ( $p = 0.039$  and  $p < 0.001$ ) and follow-up ( $p = 0.071$  and  $p < 0.001$ ) (Table 4).

In the analysis of intervention on smoking by professional group, we observed that those who asked less frequently were the psychologists, with 63.2% of them always or almost always asking about smoking, compared to 87.7% of the other professionals. As for advice, only 8.1% of psychologists gave it always or almost always, while nurses did so 34.8% and doctors 13.3% of the time. Never or rarely helping their patients to quit smoking was reported by 73.5% of physicians and 71.1% of psychologists, while 22.4% and 26.3%, respectively, did so sometimes. Only 4.1% of physicians and 2.6% of psychologists reported providing this help always or almost always, while 25.8% of nurses reported doing so. As for agreeing on a follow-up, 33.3% of the psychologists always or almost always did so, with 47.0% of nurses and 22.9% of doctors doing so (Table 3).

Regarding intervention on drinking, 86.8% of psychologists always or almost always asked, compared to 87.9% of nurses and 96.0% of doctors; 51.4% of psychologists, 48% of doctors, 31.8% of nurses always or almost always advised. In terms of assessing the motivation to quit or reduce drinking, 62.2% of the psychologists always or almost always did this, compared to 52.0% of the doctors and 42.4% of the nurses. Always or almost always helping to change alcohol use was reported by 46.0% of doctors, compared to 37.8% of psychologists and 24.2% of nurses. Agreement on follow-up was made by 58.0% of doctors, 55.6% of psychologists and 40.9% of nurses (Table 3).

The analysis of intervention levels by gender yielded no significant differences between male and female professionals in the frequency of intervention, both in smoking and alcohol intervention, with the exception of the variable *asking the patient if he or she drinks*, which is always or frequently done more by women than men (92.4% vs 81.3%;  $p = 0.028$ ).

On analysing the relationship between professional group, training and intervention, it was noted that with regard to smoking, the most relevant variable is profession,

**Table 1**  
*Sociodemographic and behavioural characteristics of the participants*

Variable	All % (n)	Psychiatrists % (n)	Psychologists % (n)	Nurses % (n)
All	100% (154)	32.5 (50)	24.6 (38)	42.9 (66)
Gender				
Male	21.2 (32)	28.0 (14)	18.9 (7)	16.9 (11)
Female	78.8 (119)	70.0 (35)	63.1 (30)	83.1 (54)
Age (mean, SD)	26.5 (3.8)	27.1 (3.3)	26.8 (2.2)	26.0 (4.4)
Smoking				
Never	70.6 (108)	69.4 (34)	71.1 (27)	71.2 (47)
Ex-smoker	13.1 (20)	12.2 (6)	10.5 (4)	15.2 (10)
Smoker	16.3 (25)	18.4 (9)	18.4 (7)	13.6 (9)
Drinking				
Yes	79.1 (121)	85.7 (42)	78.9 (30)	74.2 (49)
No	20.9 (32)	14.3 (7)	21.1 (8)	25.8 (17)
SDUs on work days (mean, SD)	0.4 (0.6)	0.6 (0.8)	0.3 (0.5)	0.2 (0.5)
SDUs on non-work days (mean, SD)	3.0 (2.4)	3.0 (1.8)	2.9 (1.9)	2.9 (3.1)
Training in smoking at university				
Yes	53.2 (82)	56.0 (28)	39.5 (15)	59.1 (39)
No	46.8 (72)	44.0 (22)	60.5 (23)	40.9 (27)
Training in alcohol use at university				
Yes	46.8 (72)	46.0 (23)	55.3 (21)	36.4 (24)
No	53.2 (82)	54.0 (27)	44.7 (17)	63.6 (42)
Training in other drugs at university				
Yes	37.0 (57)	40.0 (20)	44.7 (17)	30.3 (20)
No	63.0 (97)	60.0 (30)	55.3 (21)	69.7 (46)

Note. n = 154.  
1 SDU = 10 g of alcohol.

**Table 2**  
*Use of the 5As intervention on smoking and alcohol use among participants*

Variable	Smoking % (n)	Alcohol % (n)	p*
Ask			<b>&lt;0.001</b>
Always / Frequently	87.7 (135)	90.3 (139)	
Sometimes	7.1 (11)	7.8 (12)	
Never / Rarely	5.2 (8)	1.9 (3)	
Advise			<b>&lt;0.001</b>
Always / Frequently	22.7 (33)	41.8 (64)	
Sometimes	31.6 (48)	36.6 (56)	
Never / Rarely	46.7 (71)	21.6 (33)	
Assess readiness to change			<b>&lt;0.001</b>
Always / Frequently	27.9 (43)	50.3 (77)	
Sometimes	33.8 (52)	31.4 (48)	
Never / Rarely	38.3 (59)	18.3 (28)	
Assist			<b>&lt;0.001</b>
Always / Frequently	13.1 (20)	32.7 (50)	
Sometimes	26.8 (41)	32.7 (50)	
Never / Rarely	60.1 (92)	34.6 (53)	
Arrange follow-up			<b>&lt;0.001</b>
Always / Frequently	36.0 (54)	50.0 (76)	
Sometimes	22.7 (34)	27.0 (41)	
Never / Rarely	41.3 (62)	23.0 (35)	
Record use			<b>0.009</b>
Always / Frequently	76.0 (117)	83.1 (128)	
Sometimes	12.3 (19)	9.7 (15)	
Never / Rarely	11.7 (18)	7.1 (11)	

Note. n = 154.  
Some figures do not add up to the total due to some missing values.  
\*Chi-square test.

**Table 3**  
*Use of the 5As intervention on smoking and alcohol by profession*

Variable	All % (n)	Psychiatrists % (n)	Psychologists % (n)	Nurses % (n)
All	100% (154)	32.5 (50)	24.6 (38)	42.9 (66)
<b>SMOKING</b>				
Ask				
Always / Frequently	87.7 (135)	98.0 (49)	63.2 (24)	93.9 (62)
Sometimes	7.1 (11)	0	23.7 (9)	3.0 (2)
Never / Rarely	5.2 (8)	2.0 (1)	13.2 (5)	3.0 (2)
Advise				
Always / Frequently	21.7 (33)	13.3 (7)	8.1 (3)	34.8 (23)
Sometimes	31.6 (48)	26.5 (13)	18.9 (7)	42.4 (28)
Never / Rarely	46.7 (71)	59.2 (29)	73.0 (27)	22.7 (15)
Assess readiness to change				
Always / Frequently	27.9 (46)	18.0 (9)	7.9 (3)	47.0 (31)
Sometimes	33.8 (52)	34.0 (17)	31.6 (12)	34.8 (23)
Never / Rarely	38.3 (59)	48.0 (24)	60.5 (23)	18.2 (12)
Assist				
Always / Frequently	13.1 (20)	4.1 (2)	2.6 (1)	25.8 (17)
Sometimes	26.8 (41)	22.4 (11)	26.3 (10)	30.3 (20)
Never / Rarely	60.1 (92)	73.5 (36)	71.1 (27)	43.9 (29)
Arrange follow-up				
Always / Frequently	36.0 (54)	22.9 (11)	33.3 (12)	47.0 (31)
Sometimes	22.7 (34)	16.7 (8)	11.1 (4)	33.3 (22)
Never / Rarely	41.3 (62)	60.4 (29)	55.6 (20)	19.7 (13)
Record use				
Always / Frequently	76.0 (117)	84.0 (42)	50.0 (19)	84.8 (56)
Sometimes	12.3 (19)	10.0 (5)	15.8 (6)	12.1 (8)
Never / Rarely	11.7 (18)	6.0 (3)	34.2 (13)	3.0 (2)
<b>ALCOHOL</b>				
Ask				
Always / Frequently	90.3 (139)	96.0 (48)	86.8 (33)	87.9 (58)
Sometimes	7.8 (12)	4.0 (2)	10.5 (4)	9.1 (6)
Never / Rarely	1.9 (3)	0	2.6 (1)	3.0 (2)
Advise				
Always / Frequently	41.8 (64)	48.0 (24)	51.4 (19)	31.8 (21)
Sometimes	36.6 (56)	40.0 (20)	18.9 (7)	43.9 (29)
Never / Rarely	21.6 (33)	12.0 (6)	29.7 (11)	24.2 (16)
Assess readiness to change				
Always / Frequently	50.3 (77)	52.0 (26)	62.2 (23)	42.4 (28)
Sometimes	31.4 (48)	32.0 (16)	18.9 (7)	37.9 (25)
Never / Rarely	18.9 (28)	16.0 (8)	18.9 (7)	19.7 (13)
Assist				
Always / Frequently	34.6 (53)	46.0 (23)	37.8 (14)	24.2 (16)
Sometimes	32.7 (50)	28.0 (14)	18.9 (7)	43.9 (29)
Never / Rarely	32.7 (50)	26.0 (13)	43.2 (16)	31.8 (21)
Arrange follow-up				
Always / Frequently	50.0 (76)	58.0 (29)	55.6 (20)	40.9 (27)
Sometimes	27.0 (41)	22.0 (11)	11.1 (4)	39.4 (26)
Never / Rarely	23.0 (35)	20.0 (10)	33.3 (12)	19.7 (13)
Record use				
Always / Frequently	83.1 (128)	94.0 (47)	65.8 (25)	84.8 (56)
Sometimes	9.7 (15)	4.0 (2)	15.8 (6)	10.6 (7)
Never / Rarely	7.1 (11)	2.0 (1)	18.4 (7)	4.5 (3)

Note. n = 154.

**Table 4**  
Use of the 5As intervention on smoking and alcohol by university training

Variable	All n=154 % (n)	University training Smoking n=82; Alcohol n=72 YES % (n)	University training Smoking n=72; Alcohol n=82 NO % (n)	p*
<b>SMOKING</b>				
Ask				0.858
Always / Frequently	87.7 (135)	86.6 (71)	88.9 (64)	
Sometimes	7.1 (11)	7.3 (6)	6.9 (5)	
Never / Rarely	5.2 (8)	6.1 (5)	4.2 (3)	
Advise				<b>0.008</b>
Always / Frequently	21.7 (33)	31.7 (26)	12.5 (9)	
Sometimes	31.6 (48)	32.9 (27)	29.2 (21)	
Never / Rarely	46.7 (71)	35.4 (29)	58.3 (42)	
Assess readiness to change				<b>0.037</b>
Always / Frequently	27.9 (46)	36.6 (30)	18.1 (13)	
Sometimes	33.8 (52)	30.5 (25)	37.5 (27)	
Never / Rarely	38.3 (59)	32.9 (27)	44.4 (32)	
Assist				<b>0.039</b>
Always / Frequently	13.1 (20)	16.0 (13)	9.7 (7)	
Sometimes	26.8 (41)	33.3 (27)	19.4 (14)	
Never / Rarely	60.1 (92)	50.6 (41)	70.8 (51)	
Arrange follow-up				0.071
Always / Frequently	36.0 (54)	43.0 (34)	28.2 (20)	
Sometimes	22.7 (34)	24.1 (19)	21.1 (15)	
Never / Rarely	41.3 (62)	32.9 (26)	50.7 (36)	
Record use				0.398
Always / Frequently	76.0 (117)	72.0 (59)	80.6 (58)	
Sometimes	12.3 (19)	13.4 (11)	11.1 (8)	
Never / Rarely	11.7 (18)	14.6 (12)	8.3 (6)	
<b>ALCOHOL</b>				
Ask				0.237
Always / Frequently	90.3 (139)	93.1 (67)	87.8 (72)	
Sometimes	7.8 (12)	6.9 (5)	8.5 (7)	
Never / Rarely	1.9 (3)	0	3.7 (3)	
Advise				<b>&lt;0.001</b>
Always / Frequently	41.8 (64)	58.3 (42)	27.2 (22)	
Sometimes	36.6 (56)	26.4 (19)	45.7 (37)	
Never / Rarely	21.6 (33)	15.3 (1)	27.2 (22)	
Assess readiness to change				<b>0.001</b>
Always / Frequently	50.3 (77)	66.7 (48)	35.8 (29)	
Sometimes	31.4 (48)	19.4 (14)	42.0 (34)	
Never / Rarely	18.9 (28)	13.9 (10)	22.2 (18)	
Assist				<b>&lt;0.001</b>
Always / Frequently	34.6 (53)	51.4 (37)	19.8 (16)	
Sometimes	32.7 (50)	26.4 (19)	38.3 (31)	
Never / Rarely	32.7 (50)	22.2 (16)	42.0 (34)	
Arrange follow-up				<b>&lt;0.001</b>
Always / Frequently	50.0 (76)	72.2 (52)	30.0 (24)	
Sometimes	27.0 (41)	12.5 (9)	40.0 (32)	
Never / Rarely	23.0 (35)	15.3 (11)	30.0 (24)	
Record use				0.241
Always / Frequently	83.1 (128)	86.1 (62)	80.5 (66)	
Sometimes	9.7 (15)	5.6 (4)	13.4 (11)	
Never / Rarely	7.1 (11)	8.3 (6)	.1 (5)	

Note. Some figures do not add up to the total due to some missing values.

\*Chi-square test.

with a significance level of  $p = 0.007$ , while for alcohol the most relevant variable is having received training ( $p < 0.001$ ).

In terms of the relationship between the variable *use by the professional* and level of intervention, the analysis yielded no significant relationships in either smoking or alcohol.

## Discussion

Results of this study show that the level of systematic intervention by professionals on tobacco and alcohol use in patients undergoing treatment for mental health disorders was low, with intervention on alcohol being slightly higher overall than on smoking.

For a precise interpretation of the results, it is important to take into account the limitations of this study. One of the main limitations lies in the self-reported nature of the bias data, which could be the results if residents declared higher levels of intervention in their patients and lower levels of their own smoking and especially alcohol. The sample of residents may be also be biased, since 54.5% did not attend the training and therefore did not participate in the study. These residents may not have attended the training because they had already been trained in the course of their university degree, so the lack of training and perhaps the lack of practice would be overestimated in the residents studied. However, the percentage of attendance for this training is similar to that of sessions on other subjects within this same training session cycle. Finally, this study has linked the level of training received by the professionals to their level of clinical intervention, and although being trained is the main and basic condition for intervention, other variables may be influencing the level of intervention, for example, following the model of senior professionals or following the priorities set by the centre where they work, among other reasons not included in this study. However, the results were obtained from professionals working in different health centres in Catalonia with different situations and characteristics, so the effect of this aspect would be limited.

The strengths of this study include the high questionnaire response rate from the residents who attended the training and the fact that it is one of the few studies in Spain analysing the relationship between training, intervention and the smoking and drinking habits of mental health residents.

Despite the existing scientific evidence on the importance of tobacco and alcohol use in psychiatric patients (Callaghan et al., 2014; Callaghan, Gatley, Sykes & Taylor, 2018; Petrakis, Gonzalez, Rosenheck & Krystal, 2002), we have observed that less than 15% of professionals provided any help to quit smoking systematically. For alcohol, the level of intervention was somewhat higher (32%). This frequency, however, is very similar to that found in other

studies, which also show a high interest in receiving training (Prochaska, Fromont & Hall, 2005). Regarding gender, in general, no differences between men and women were found in the frequency of intervention. However, the results must be interpreted with caution since only 21% of the sample were men, and perhaps in a larger total sample some significant trends may be observed.

The training received is related to the type of interventions performed by the professional. In our study, the relationship seems to be negative, that is, having received training was not necessarily related to more intervention, while not having received it was linked to less intervention, as has been shown in other studies (Carson et al., 2012; Prochaska et al., 2008).

About half of the first-year mental health residents in Catalonia did not receive any training in smoking and alcohol intervention during their university degree (Medicine, Psychology and Nursing), which seems to translate into a lack of intervention on their patients. If we take into account the important effects that smoking and drinking have on the health of people with mental disorders, both from the point of view of prevalence and morbidity and mortality, as well as the severity of the psychiatric pathology, it is incomprehensible how little training is received. This shortcoming is probably due to a gap between study plans and scientific evidence.

The percentage of resident smokers was smaller than that of the general adult population (22.6% in Catalonia) (ESCA 2021, Generalitat de Catalunya, 2022), a similar result to that found in another study (Juárez-Jiménez, Valverde-Bolívar, Pérez-Milena & Moreno-Corredor, 2015b) with a sample of residents. The fact that psychologists and doctors in our sample are those who smoked the most is striking, although the prevalence is still lower than in the general population. In the case of alcohol, most residents drank (79.1%), as was observed in another study (Bolívar, Milena & Corredor, 2013), although quantity and frequency were both very low.

It should be noted that among nurses the prevalence of smokers was lower (13.6%) than among other professionals (18.4% in psychologists and doctors).

Psychologists are those who carried out less frequently intervention in practically all 5As phases and, although the training factor could play a part, they were not the ones receiving the least training, since 50% stated that they had done so. Smoking status did not appear to have an influence either, as some studies have suggested (Cerrada, Olmeda, Senande, Rodríguez & Cuesta, 2005; Juárez-Jiménez et al., 2015a). This low level of intervention by psychologists is also paradoxical, since smoking and alcohol interventions are in essence based on psychological techniques (counselling, motivational interviewing or behavioural strategies and cognitive restructuring in relapse prevention).

The training received by nursing professionals is striking: while 59.1% stated that they received training in smoking, only 36.4% said that they received training in dealing with alcohol use. These data led to a high level of intervention in smoking compared to a lower level of intervention in alcohol problems, despite the intervention skills and techniques, except in the case of severe alcohol use, being similar and the need for intervention for the promotion of health being the same.

Smoking intervention in the field of mental health in Spain is still deficient, both in clinical intervention and in the training of professionals, among other aspects (Ballbè et al., 2012). People with serious mental disorders die an average of 25 years earlier than the general population mostly from diseases caused or exacerbated by smoking (Bolívar et al., 2013; Colton & Manderscheid, 2006; Miller, Paschall & Svendsen, 2006). Similarly, there is clear evidence that the progression of psychiatric pathology is worse in patients with mental illnesses who smoke and drink (American Psychiatric Association, 2006). However, it does not seem that all this has led to any changes, neither in the field of training nor in clinical practice. The results of this study show the need to introduce modifications in the education of mental health professionals since training is associated with increased intervention as well as a different response in attitudes towards this intervention (Payne et al., 2014; Prochaska et al., 2008).

It is important, therefore, to incorporate training interventions in tobacco and alcohol, as well as other drugs, in the university curricula of the health professions in order to promote greater awareness and to increase levels of clinical intervention, which would in turn increase the quality and life expectancy of a highly vulnerable population.

## Conclusions

University training on intervention in smoking and alcohol use received by professionals in the field of mental health was directly associated with the frequency of intervention on their patients in their normal clinical practice, with the professionals receiving more training on their degree courses being those who intervened the most. There were differences in professional role, with nurses the ones who carried out interventions with greater frequency in smoking, and doctors in alcohol use. The alcohol and smoking status of professionals did not show a relationship with levels of intervention. Given that only half of the professionals had received training in this field and due to the importance of this type of intervention for public health, it would be advisable to review the university curricula of health professions.

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## Conflict of interests

The authors declare no conflicts of interest with this work.

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