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ORIGINALES

Opinion and perception of attitudes related to smoking and its prohibition in mental health services

Opinião e percepção das atitudes relacionadas ao tabagismo e sua proibição em serviços de saúde mental

Opinión y percepción de las actitudes relacionadas con el tabaquismo y su prohibición en servicios de salud mental

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ABSTRACT:

Introduction: The opinions and perceptions about smoking in the psychiatric population contribute to the fact that its prevalence in this population remains two or three times higher than that found in other groups.
Aims: 1) To compare the opinions of the psychiatric population and general population regarding the smoking ban in mental health services, as well as their perception of mental health professionals' attitudes in relation to smoking; 2) To identify the association between personal and clinical variables with opinions and perception of attitudes.
Methods: This Brazilian cross-sectional epidemiological study took place in: Mental Health Outpatient Unit (n=126), Psychiatric Hospital (n=126) and Primary Health Unit (n=126). Individual interviews were performed using a questionnaire.
Results: Most participants believe that smoking ban may aggravate psychiatric symptoms. When comparing the responses of the psychiatric population with those of the general population, it is observed that the two groups have similar opinions regarding the effects of tobacco on psychiatric symptoms and behaviors. The population hospitalized in the psychiatric hospital was the one that most agreed with the perception of the attitudes of professionals working in mental health services towards smoking, possibly due to situations experienced in the psychiatric hospital. Among the personal and clinical variables, the illiterate or those who studied up to primary/junior high school were the ones who most agreed that the smoking ban aggravates psychiatric symptoms.
Conclusions: This study contribute to the practice of psychiatric nursing by disclosing the opinions and perceptions of attitudes associated with smoking in mental health services.

Key words*:* Smoking; Smoke-free policy; Mental health services; Culture; Psychiatric nursing.

RESUMO:

Introdução: As opiniões e percepções acerca do tabagismo da população psiquiátrica contribuem para sua prevalência, nessa população, ser duas a três vezes superior à encontrada em outros grupos.
Objetivo: 1) Comparar as opiniões da população psiquiátrica e da população geral em relação à proibição do fumo nos serviços de saúde mental, bem como a percepção que elas têm das atitudes dos profissionais de saúde mental em relação ao tabagismo; 2) Identificar a associação entre variáveis pessoais e clínicas com as opiniões e percepção das atitudes.
Método: Este estudo epidemiológico brasileiro de corte transversal foi realizado em: Ambulatório de Saúde Mental (n=126), Hospital psiquiátrico (n=126) e Unidade Básica de Saúde (n=126). Foram conduzidas entrevistas individuais usando questionário.
Resultados: A maioria dos participantes acredita que os sintomas psiquiátricos podem ser agravados com a proibição do fumo. Ao comparar as respostas da população psiquiátrica com as da população geral, é observado que os dois grupos têm opiniões similares acerca dos efeitos do tabaco nos sintomas psiquiátricos e no comportamento. A população internada no hospital psiquiátrico foi a que mais concordou com as afirmativas relacionadas às atitudes dos profissionais que trabalham nos serviços de saúde mental em relação ao tabagismo, possivelmente devido às situações que experienciam no hospital psiquiátrico. Dentre as variáveis pessoais e clínicas, os analfabetos e os que estudaram até o ensino fundamental foram os que mais concordaram que a proibição do fumo pode agravar os sintomas psiquiátricos.
Conclusão: Este estudo contribui para a prática da enfermagem psiquiátrica ao revelar as opiniões e percepções das atitudes relacionadas ao tabagismo nos serviços de saúde mental.

Descritores: Tabagismo; Áreas proibidas ao tabagismo; Serviços de saúde mental; Cultura; Enfermagem psiquiátrica.

RESUMEN:

Introducción: Las opiniones y percepciones acerca del tabaquismo de la población psiquiátrica contribuyen a que su prevalencia, en esa población, sea de dos a tres veces superior a la encontrada en otros grupos.
Objetivos: 1) Comparar las opiniones de la población psiquiátrica y de la población general en relación a la prohibición de fumar, en los servicios de salud mental, así como comparar la percepción que tienen de las actitudes de profesionales de salud mental, en relación al tabaquismo; 2) Identificar la asociación entre variables personales y clínicas con las opiniones y percepciones de las actitudes.
Método: Este estudio epidemiológico brasileño de corte transversal fue realizado en Ambulatorio de Salud Mental (n=126), en Hospital psiquiátrico (n=126) y en Unidad Básica de Salud (n=126). Fueron realizadas entrevistas individuales usando un cuestionario.
Resultados: La mayoría de los participantes cree que los síntomas psiquiátricos pueden agravarse con la prohibición de fumar. Al comparar las respuestas de la población psiquiátrica con la población general, se observó que los dos grupos tienen opiniones similares acerca de los efectos del tabaco en los síntomas psiquiátricos y en el comportamiento. La población internada en el hospital psiquiátrico fue la que más concordó con las afirmaciones relacionadas a las actitudes de los profesionales que trabajan en los servicios de salud mental, en relación al tabaquismo, posiblemente debido a las situaciones que experimentan en el hospital psiquiátrico. Entre las variables personales y clínicas, los analfabetos y los que estudiaron hasta la enseñanza fundamental fueron los que más concordaron que la prohibición de fumar puede agravar los síntomas psiquiátricos.
Conclusión: Este estudio contribuye para la práctica de la enfermería psiquiátrica, al revelar las opiniones y percepciones de actitudes relacionadas al tabaquismo, en los servicios de salud mental.

Descriptores: Tabaquismo; Áreas prohibidas al tabaquismo; Servicios de salud mental; Cultura; Enfermería psiquiátrica.

INTRODUCTION

Throughout the history of mankind, smoking was surrounded by different beliefs. The first historical accounts suggest tobacco, discovered by the indigenous peoples of the Americas (1000 Before Christ), was used for therapeutic purposes and in religious rituals. It was associated with different attributes: magic; purifier; protector; encourager of warriors; predictor of the future and savior of mankind[1,2].

In some countries, the introduction of tobacco was controversial. The hallucinogenic effects of some varieties of tobacco plants (*Nicotiana Penicilata* and *Nicotiana Ondulata*) were mistaken for demon possession. It is said that, by 1630, smoking was banned, under death penalty, in Turkey and China. In Russia, Sudan and Persia, smokers were killed after having nose and lips mutilated. Some tobacco growers were burnt alive[1,2].

In spite of the controversies, tobacco spread rapidly in all social classes. The smoking, along with coffee, was taken as a symbol of modernity. In 1577, European physicians suggested that tobacco could be used to cure some diseases, and the recognition of its therapeutic use reinforced the acceptance by society[1,2].

Within the population of patients with mental disorders, tobacco-related opinions and perceptions of attitudes are mainly linked to its interference in psychiatric symptoms and to the control of the aggressiveness of some patients. For many years, these thoughts justified the use of tobacco in mental health services as a means to strengthen patient's adherence to therapeutic plans, reward their contribution to care activities (bathing of dependent patients, ward organization) and control their behavior[3,4].

The scientific literature presents smoking as a historical fact that reflects a cultural behavior of the psychiatric population, conveying the idea of something that happened in the past, without consequences today. However, tobacco is still used by nurses as a therapeutic resource (attempt to calm patients down) and reward in many psychiatric services, in which the prohibition of smoking in public premises (Law 12546/2011 and Decree 8262/2014) is challenged, perpetuating the tobacco culture in the psychiatric environment.

In this scenario, the opinions and perceptions of attitudes related to tobacco consumption in the psychiatric population contribute to the fact that its prevalence in this population remains two or three times higher than that found in other groups. Besides, it is recognized that psychiatric patients show tobacco dependency more intense than people without mental disorders[5-7].

Evidence of the influence of opinions and perceptions of attitudes regarding tobacco smoking in the psychiatric population is the perpetuation of high prevalence of smokers, despite the widespread knowledge of its harm to this population, such as higher occurrence of somatic comorbidities, decreased life expectancy, aggravation of psychiatric symptoms and suicide risk[8-10].

These opinions are directly and indirectly influenced by the tobacco industry, a decisive factor for the prevalence of smoking among people with mental disorders, which does not follow the decline of tobacco use that is observed in the general population. By generating controversy in the literature, it contributed to the creation of myths aimed to delay the development of tobacco dependence treatments for this population and to weaken the scientific and political grounds for the banning of smoking in mental health services [11].

Given the above, nursing professionals aware of the need to intervene in tobacco consumption in psychiatric population face difficulties and resistance since the

perception that tobacco relieves psychiatric symptoms and reduces aggressiveness is shared by both the lay public and many health professionals[12,13].

The opinions and perceptions of attitudes associated with tobacco use in different history periods and populations demonstrate the complexity of the subject. The controversial smoking ban in public premises makes necessary to discuss the opinions and perception of attitudes about smoking related to the psychiatric population, since it conflicts with the historical and cultural insertion of smoking in mental health services.

Therefore, it is worth assessing the opinions and perception of attitudes involved in the smoking ban in mental health services, in order to contribute to understand the barriers for having the legislation met by these services. Laws and decrees enforce restrictions to the use of tobacco; however, it is noteworthy there is a lack of control of their real compliance.

Assuming that opinions and attitudes associated to tobacco smoking in mental health services influence its control, identifying these opinions and attitudes becomes relevant.

Due to the complexity of the theme and the recognition of the old lunatic asylums culture (current psychiatric hospitals), this study opted for investigate and compare the opinion and perception of attitudes among hospitalized psychiatric patients, psychiatric patients treated in the ambulatory system and the general population of Primary Health Care (covering people with and without mental disorders).

Research questions: 1) Is there difference in the opinion of the psychiatric population and the general population regarding smoking ban in mental health services? 2) How do the psychiatric population and general population perceive mental health professionals' attitudes in relation to smoking? 3) Are the personal and clinical variables associated with the opinions and perceptions of attitudes?

This study aimed: 1) To compare the opinions of the psychiatric population and the general population regarding the smoking ban in mental health services, as well as their perception of mental health professionals' attitudes in relation to smoking; 2) To identify the association between personal and clinical variables with opinions and perception of attitudes.

METHODS

A cross-sectional epidemiological study was conducted in a Mental Health Outpatient Unit, a Psychiatric Hospital, and a Primary Health Unit of a city in the state of São Paulo, Brazil.

The Mental Health Outpatient Unit is linked to a public teaching hospital of the municipality. People with mental disorders are referred to the emergency room, the psychiatric ward of the general hospital and the psychiatric hospital. Four thousand consultations are carried out monthly.

The Psychiatric Hospital is a privately managed, philanthropic psychiatric hospital. It has 215 beds assigned to the Brazilian Public Unified Health System, divided into five

wards: women (n= 51); men with chemical dependency (n= 46); men with psychotic disorder (n= 36); juvenile offenders (n= 20) and dweller patients (n= 62). This study was conducted in the units for women (average monthly admission= 44, average hospital stay = 39 days) and for men with psychotic disorder (average monthly admission= 36, average hospital stay= 34 days). The Psychiatric Hospital allows patients to smoke a pack of cigarettes a day.

The Primary Health Unit chosen to conduct the study has the highest care volume among the 12 units of the municipality. Monthly, 1,450 medical consultations and 11,564 procedures (care provided by higher-education health workers other than physicians, mid-level nursing care and examinations) are carried out in this unit.

The sample was calculated considering an estimated prevalence of 40% of smokers in the Mental Health Outpatient Unit (P1) and 60% in the Psychiatric hospital (P2). The prevalence of 40% smokers in the ambulatory (Mental Health Outpatient Unit) and of 60% in the Psychiatric Hospital was estimated based on previous experience of the researchers in these services[6].

It was adopted a significance level (α) of 5% and 10% as the probability of occurrence of type II error (β), and the calculation resulted in a sample of 126 participants in each participants in each studied unit. Thus, the total sample consisted of 378 people.

$$n= \frac{(Z_\alpha + Z_\beta)^2 \times (P_1Q_1 + P_2Q_2)}{(P_1 - P_2)^2} = \frac{(1{,}96 + 1{,}28)^2 \times (40 \times 60 + 60 \times 40)}{(40 - 60)^2} \quad 126$$

The inclusion criteria were: 1) People living in Marilia city and 2) attending one of the studied units during the period of data collection. The exclusion criteria were: under 15 years of age; under treatment for alcohol or illicit substance dependence without psychiatric comorbidities; unable to communicate verbally; with medical diagnosis of mental retardation.

Individuals under 15 years old were excluded in order to ensure comparability with important studies subsidized by World Health Organization, which adopted the same exclusion criteria[14]. People with alcohol and illicit substances problems without mental disorder diagnostic (mood, anxiety, personality, eating and psychotic disorders) were not included because their presence in the study could overestimate smoker's prevalence.

This study was approved by the Research Ethics Committee (308/2013) (CAAE 21101113.3.0000.5393, recorded in *Plataforma Brasil*). The participants signed two originals of the Informed Consent Form.

Data were collected through individual interviews (between February and July 2016), carried out by a single researcher in a private room of the healthcare unit. Interviews had an average duration of 18 minutes (lasting from 10 to 47 minutes). The instrument used: 1) Questionnaire for identification of patients of mental health services and primary health services.

The Identification Questionnaire was developed by the researchers especially for this project. Its content was subjected to the evaluation of four judges. Ten identification

variables and five affirmative variables were used to investigate the opinions and perceptions of attitudes about tobacco smoking and smoking ban in mental health services. The identification variables: sex (female, male); age group (15 to 29 years old, 30 to 39 years old, 40 to 49 years old, 50 to 59 years old, ≥ 60 years old); educational level (illiterate, primary/junior high school, senior high school, higher education); religion Roman Catholic, Pentecostal, Spiritualist/others, no religion), somatic comorbidities (yes, no); population (persons with psychiatric disorder who attend the mental health outpatient service, persons with psychiatric disorder who are hospitalized in the psychiatric hospital, persons of the general population who seek attendance in the Primary HealthCare Center); main psychiatric diagnosis (serious psychiatric illness, other psychiatric disorders, no psychiatric diagnosis); duration of psychiatric illness (< 1 year, 1 to 12 years, > 12 years); psychiatric hospitalization (yes, no); tobacco smoking (smoker, former smoker, non-smoker).

The five affirmative variables regarding opinions and perceptions of attitudes were: 1) Ban smoking in mental health services may worsen the symptoms of psychiatric patients; 2) Allow psychiatric patients to smoke is a way for health workers to feel safe from aggressions; 3) In mental health services, the cigarette is used to facilitate dialogue between patients and health workers; 4) In mental health services, the cigarette is used to encourage the psychiatric patient to take medicines; 5) In mental health services, the cigarette is used to encourage the psychiatric patient to participate in therapeutic activities. For each statement, there are two options of response: agree or disagree/do not know.

Data were statistically processed using Stata (version 12). Descriptive statistics tools (absolute and relative frequency) and bivariate analysis (chi-square test) were used. The significance level of 5% was adopted.

RESULTS

Characterization of the participants

Most of the 378 participants were women (67%), ≥ 40 years old (69%) and had finished primary school (56%). Table 1 shows the personal and clinical profile of the participants.

Table 1. Absolute and relative frequency (%) of subjects' characterization – Brazil

	MHOU	PH	PHU	Total
Sex (p-value < 0,001*)	n (%)	n (%)	n (%)	n (%)
Female	90 (71,4)	67 (53,2)	98 (77,8)	255 (67,5)
Male	36 (28,6)	59 (46,8)	28 (22,2)	123 (32,5)
Age group (years old) (p<0,001*)				
15 to 29	13 (10,3)	25 (19,8)	10 (7,9)	48 (12,7)
30 to 39	27 (21,4)	23 (18,3)	18 (14,3)	68 (18)
40 to 49	27 (21,4)	35 (27,8)	10 (7,9)	72 (19,1)
50 to 59	35 (27,8)	29 (23)	37 (29,4)	101 (26,7)
≥60	24 (19,1)	14 (11,1)	51 (40,5)	89 (23,5)

Educational level (p-value < 0,001*)				
Illiterate	8 (6,3)	3 (2,4)	9 (7,1)	20 (5,3)
Primary/Junior high	52 (41,3)	86 (68,2)	74 (58,7)	212 (56,1)
Senior high school	47 (37,3)	31 (24,6)	29 (23,0)	107 (28,3)
Higher education	19 (15,1)	6 (4,8)	14 (11,1)	39 (10,3)
Religion (p-value: 0,226)				
Roman Catholic	65 (51,6)	62 (49,2)	77 (61,1)	204 (54,0)
Pentecostalist	51 (40,5)	46 (36,5)	42 (33,3)	139 (36,8)
Spiritualist/other	3 (2,4)	7 (5,6)	2 (1,6)	12 (3,2)
No religion	7 (5,6)	11 (8,7)	5 (4,0)	23 (6,1)
Somatic comorbidities (p-value: 0,007*)				
Yes	63 (50,0)	67 (53,2)	86 (68,2)	216 (57,1)
No	63 (50,0)	59 (46,8)	40 (31,7)	162 (42,9)
Main psychiatric diagnosis (p value < 0,001*)				
Serious mental disorders	89 (70,6)	113 (89,7)	17 (13,5)	219 (57,9)
Other psychiatric disorders	37 (29,4)	13 (10,3)	19 (15,1)	69 (18,2)
No diagnosis	-	-	90 (71,4)	90 (23,8)
Duration of psychiatric disorder (years) (p-value < 0,001*)				
< 1 year	21 (16,7)	10 (7,9)	7 (5,6)	38 (10,0)
1 to 12	67 (53,2)	46 (36,5)	11 (8,7)	124 (32,8)
> 12	38 (30,2)	70 (55,6)	18 (14,3)	126 (33,3)
No diagnosis	-	-	90 (71,4)	90 (23,8)
Psychiatric hospitalizatoin (p-value < 0,001*)				
Yes	62 (49,2)	126 (100,0)	11 (8,7)	199 (52,6)
No	64 (50,8)	-	115 (91,3)	179 (47,3)
Total	**126 (100,0)**	**126 (100,0)**	**126 (100,0)**	**378 (100,0)**

MHOU: Mental Health Outpatient Unit, PH: Psychiatric Hospital, PHU: Primary Health Unit
Source: own elaboration

Prevalence of smokers was higher in psychiatric hospitals than in other places (Mental Health Outpatient Unit= 27%, Psychiatric hospital= 60,3%, Primary Health Unit= 19%). Two Psychiatric hospital participants reported they started smoking during the current admission.

Opinions about smoking ban in mental health services

Table 2 shows the participants' opinion about the worsening of psychiatric symptoms due to the smoking ban in mental health services and about allowing the use of tobacco as an attempt to make the health worker to feel safe from aggressions.

Table 2. Absolute and relative frequency (%) of subjects' opinions about smoking ban in mental health services, according to population, sex, age, educational level, religion, somatic comorbidities, main psychiatric diagnosis, duration of mental disorder, psychiatric hospitalization and tobacco smoking – Brazil

	Opinions			
	Ban smoking in mental health services may worsen the symptoms of psychiatric patients		Allow psychiatric patients to smoke is a way for health workers to feel safe from aggressions	
	n (%)	p-value	n (%)	p-value
Sex				
Female	188 (73,7)	0,527	158 (61,9)	0,137
Male	95 (77,2)		86 (69,9)	
Age group (years old)				
15 to 29	29 (60,4)	0,097	21 (43,7)	0,001*
30 to 39	52 (76,5)		40 (58,8)	
40 to 49	57 (79,2)		46 (63,9)	
50 to 59	73 (72,3)		67 (66,3)	
> 60	72 (80,9)		70 (78,6)	
Educational level				
Illiterate	16 (80,0)	0,022*	16 (80,0)	0,001*
Primary/Junior high	170 (80,2)		150 (70,7)	
Senior high school	73 (68,2)		61 (57,0)	
Higher education	24 (61,5)		17 (43,6)	
Religion				
Roman Catholic	154 (75,5)	0,796	142 (69,6)	0,088
Pentecostalist	101 (72,6)		80 (57,5)	
Spiritualist/other	9 (75,0)		9 (75,0)	
No religion	19 (82,6)		13 (56,5)	
Somatic comorbidities				
Yes	169 (78.2)	0,094	152 (70,4)	0,007*
No	114 (70,4)		92 (56,8)	
Population				
MHOU	89 (70,6)	0,287	70 (55,6)	0,006*
PH	100 (79,4)		94 (74,6)	
PHU	94 (74,6)		80 (63,5)	
Main psychiatric diagnosis				
Serious mental disorders	170 (77,6)	0,303	150 (68,4)	0,050
Other mental disorders	48 (69,6)		36 (52,2)	
No diagnosis	65 (72,2)		58 (64,4)	
Duration of mental disorder (yerss)				
< 1	26 (68,4)	0,535	20 (52,6)	0,088
1 to 12	93 (75,0)		75 (60,5)	
> 12	99 (78,6)		91 (72,2)	
No diagnosis	65 (72,2)		58 (64,4)	
Psychiatric hospitalization				
Yes	151 (75,8)	0,637	135 (67,8)	0,163

No	132 (73,7)		109 (60,9)	
Tobacco smoking				
Smoker	108 (80,6)	0,141	97 (72,4)	0,057
Former smoker	48 (73,8)		40 (61,5)	
Non-smoker	127 (70,9)		107 (59,8)	
Total	**283 (74,9)**		**244 (64,5)**	

MHOU: Mental Health Outpatient Unit, PH: Psychiatric Hospital, PHU: Primary Health Unit
* Evidence of statistical association ($p < 0.05$)
Source: own elaboration

Although 319 (84.4%) participants declared themselves against allowing smoking in mental health services, three quarters of the respondents said that psychiatric symptoms may be aggravated with the smoking ban in these places. When comparing the responses to this statement between the psychiatric population and the general population, no statistical difference was evidenced, showing that the two populations have similar opinions. There was one personal variable with evidence of statistical difference: educational level - illiterate people or those who concluded primary/junior high are the ones who most agreed with the possibility of worsening of symptoms.

Approximately two-thirds agreed that allowing psychiatric patients to smoke is a way for health workers to feel safe from possible aggressions. When comparing the responses to this statement between the psychiatric population and the general population, statistical difference was evidenced, showing that the psychiatric population that was hospitalized was more likely to agree with the statement than the other participants. This opinion was also more prevalent among older people (60 years or more), illiterate or those who attended primary/junior high school and those who reported having somatic comorbidities.

Perception of the psychiatric population and the general population regarding mental health professionals' attitudes in relation to smoking ban

Table 3 shows the perception of the psychiatric population and the general population regarding mental health professionals' attitudes in relation to smoking ban.

Table 3.1 Absolute and relative frequency (%) of the perception of the psychiatric population and the general population regarding mental health professionals' attitudes in relation to smoking ban, according to population, sex, age, educational level, religion, somatic comorbidities, main psychiatric diagnosis, duration of mental disorder, psychiatric hospitalization and tobacco smoking - Brazil

	In mental health services...		
	… the cigarette is used to facilitate dialogue between patients and health workers	… the cigarette is used to encourage the psychiatric patient to take medicines	… the cigarette is used to encourage the psychiatric patient to participate in therapeutic activities (groups, workshops, etc.)
	n (%)	n (%)	n (%)
Sex			
Female	105 (41,2)	102 (40,0)	97 (38,0)
Male	61 (49,6)	55 (44,7)	59 (48,0)
p-value	0,150	0,436	0,075
Age group (years old)			
15 to 29	24 (50,0)	16 (33,3)	14 (29,2)
30 to 39	29 (42,6)	28 (41,2)	31 (45,6)
40 to 49	33 (45,8)	26 (36,1)	24 (33,3)
50 to 59	39 (38,6)	41 (40,6)	38 (37,6)
> 60	41 (46,1)	46 (51,7)	49 (55,1)
p-value	0,699	0,205	0,013*
Educational level			
Illiterate	11 (50,0)	12 (60,0)	11 (55,0)
Primary/Junior high	104 (49,1)	98 (46,2)	96 (45,3)
Senior high school	40 (37,4)	37 (34,6)	36 (33,6)
Higher education	11 (28,2)	10 (25,6)	13 (33,3)
p-value	0,028*	0,012*	0,089
Religion			
Roman Catholic	95 (46,6)	86 (42,2)	89 (43,6)
Pentecostalist	57 (41,0)	57 (41,0)	57 (41,0)
Spiritualist/other	5 (41,7)	4 (33,3)	3 (25,0)
No religion	9 (39,1)	10 (43,5)	7 (30,4)
p-value	0,733	0,958	0,438
Somatic comorbidities			
Yes	94 (43,5)	91 (42,1)	88 (40,7)
No	72 (44,4)	66 (40,7)	68 (42,0)
p-value	0,917	0,833	0,833
Population			
MHOU	46 (36,5)	45 (35,7)	43 (34,1)
PH	82 (65,1)	65 (51,6)	63 (50,0)
PHU	38 (30,2)	47 (37,3)	50 (39,7)
p-value	0,000*	0,021*	0,036*
Main psychiatric diagnosis			
Serious mental	111 (50,7)	98 (44,7)	98 (44,7)

disorders			
Other mental disorders	28 (40,6)	29 (42,0)	24 (34,8)
No diagnosis	27 (30,0)	30 (33,3)	34 (37,8)
p-value	0,003*	0,179	0,256
Duration of mental disorder (years)			
< 1	14 (36,8)	13 (34,2)	16 (42,1)
1 to 12	59 (47,6)	51 (41,1)	42 (33,9)
> 12	66 (52,4)	63 (50,0)	64 (50,8)
No diagnosis	27 (30,0)	30 (33,3)	34 (37,8)
p-value	0,006*	0,072	0,047*
Psychiatric hospitalization			
Yes	111 (55,8)	94 (47,2)	92 (46,2)
No	55 (30,7)	63 (35,2)	64 (35,7)
p-value	0,000*	0,021*	0,047*
Tobacco smoking			
Smoker	83 (61,9)	68 (50,7)	63 (47,0)
Former smoker	24 (36,9)	26 (40,0)	25 (38,5)
Non-smoker	59 (32,9)	63 (35,2)	68 (38,0)
p-value	0,000*	0,022*	0,253
Total	**166 (43,9)**	**157 (41,5)**	**156 (41,3)**

MHOU: Mental Health Outpatient Unit, PH: Psychiatric Hospital, PHU: Primary Health Unit
* Evidence of statistical association (p <0.05)
Source: own elaboration

More than half the respondents disagreed with the assertion that smoking is currently used as a care "instrument" in mental health services (to facilitate the dialogue between health worker and patient and encourage the adherence to drug therapy and the participation in groups, workshops, etc.). The frequency of those who agreed with these statements was yet high (Table 3).

When comparing the perception of the psychiatric population and the general population regarding mental health professionals' attitudes in relation to smoking, it was observed, in the Psychiatric Hospital, prevalence of respondents who agreed with the statements, especially with the one asserting that smoking is used to facilitate dialogue between patients and health workers. Frequency of agreement with these statements was similar in the Mental Health Outpatient Unit and Primary Health Unit (Table 3).

Approximately 44% agreed that “In mental health services, the cigarette is used to facilitate dialogue between patients and health workers”. With evidence of statistical difference, this opinion was also more prevalent among illiterate people or people who attended primary/junior high school, diagnosed with severe mental disorders, diagnosed with mental disorders for 12 years or more, with history of psychiatric hospitalization, and smokers (Table 3).

As can be seen in Table 3, the highest frequency of respondents who believe that “In mental health services, the cigarette is used to encourage the psychiatric patient to take medicines”, also occurred among illiterate people or people who attended

primary/junior high school, people with history of psychiatric hospitalization and smokers.

Among the 378 participants, 41,3% believe that “In mental health services, the cigarette is used to encourage the psychiatric patient to participate in therapeutic activities (groups, workshops, etc.)”. Fisher's exact test showed statistical difference between older people, diagnosed with mental disorder for 12 years or more and with history of psychiatric hospitalization (Table 3).

DISCUSSION

In this study, four out of ten respondents agreed that smoking is used in mental health services as a "care instrument", to facilitate the dialogue between health workers and patients and to encourage the patient to take medicines and participate in groups, workshops and meetings with health workers.

Respondents from the Mental Health Outpatient Unit and Primary Health Unit expressed similar opinions, which is understandable given that half of the respondents from the Mental Health Outpatient Unit had no history of psychiatric hospitalization.

Most of Psychiatric Hospital respondents, on the other hand, said that smoking was used as a "care instrument"; a more accurate perception, as they reported what they were witnessing or experiencing during their current hospitalization.

For Psychiatric Hospital respondents, the use of cigarettes as a way to facilitate the dialogue between patients and health workers was the most frequently agreed statement among those that defined tobacco as a “care instrument”. This issue directly involves the nursing staff, due to the greater proximity to patients, from both personnel-relation and time-spending standpoints.

These results are consistent with the scientific literature, which shows tobacco has been used for many years as a way to reward good behavior of psychiatric patients, manage their symptoms, encourage them to be less resistant to therapy and facilitate interactions. Moreover, in some situations it is used as blackmail[3,4,15-19].

Two Psychiatric Hospital participants reported they started smoking during the current admission. Coincidentally, the scientific literature has reports of patients with mental disorders who started smoking, and ex-smokers who started smoking again, to pass the time and relieve anxiety[20].

One reason that contributes to the resistance against the ban of smoking in health services is the thought that withdrawing the tobacco may aggravate the psychiatric symptoms. Three-quarters of participants agreed on the possibility of symptoms being worsened.

Contrary of this perception, an American study conducted with 577 mental health patients showed improvement in mental health symptoms (depression, psychotic symptoms, emotional lability) 6 months after smoking cessation[21].

Interestingly, in this study the percentage of people who agreed that the smoking ban may worsen psychiatric symptoms did not differ between the psychiatric population of the secondary and tertiary levels of care and the general population of the primary health network, revealing how consolidated is this opinion in the lay public.

Coincidentally, the vast majority agreed that smoking is allowed in the health services as a way for health workers to feel safe from aggressions. However, this opinion was more significant among the Psychiatric Hospital participants.

Although this opinion was the most frequent in the Psychiatric Hospital, it was realized, because of some situations experienced during the interviews in this unit (fight over cigarettes and butts, disagreement between patients and health workers due to the limit of one pack per day, theft of objects to exchange for cigarettes), that some smokers agreed with this statement using a tone of veiled threat against the researcher, as if to prevent any possibility of enforcing a full smoking ban in the unit.

Several studies have shown that, after restricting smoking in psychiatric services, patients' mental health improved, reducing the chance of a new admission. In addition, there is evidence that the smoking ban is not followed by increased aggressiveness of patients, showing that its implementation is easier than initially expected[21-26].

An American study conducted in 14 inpatient psychiatric units showed that there was no change in incidence of seclusion or patients' restraint after the implementation of smoking ban[27].

Studies identified benefits with the tobacco dependence treatment in psychiatric patients, such as: improvement of mental health, reduction of depressive symptoms, decrease of antipsychotic and antiparkinsonians drugs dosage[27].

Regarding the statements related to the participants' perception of the attitudes of professionals working in mental health services towards smoking, the population hospitalized in the psychiatric hospital was the one that most agreed with them, possibly due to the situations they were experiencing or testifying in the psychiatric hospital. This is reinforced by noting that the opinions of the psychiatric population from Mental Health Outpatient Unit and the general population of primary health care were similar.

Although the use of cigarettes as an instrument of care (to facilitate dialogue or "bargain" with patients) is a characteristic behavior of old asylums, current studies have discussed this behavior, showing the difficulty of this culture to be overcome in mental health services[16,18,19].

Regarding the personal and clinical profile, the educational level draws attention as it was associated with four of the five statements investigated in the present study: (1) "Ban smoking in mental health services may worsen the symptoms of psychiatric patients"; 2) "Allow psychiatric patients to smoke is a way for health workers to feel safe from aggressions"; 3) "In mental health services, the cigarette is used to facilitate dialogue between patients and health workers" e 4) "In mental health services, the cigarette is used to encourage the psychiatric patient to take medicines"). The frequency of people who agreed with these four statements was higher among the

illiterate and those who studied up to primary/junior high school than among those who studied senior high school or higher education.

The association of educational level with the opinions and perceptions of attitudes suggests that people with less education are more likely to defend beliefs passed down from generation to generation, possibly because limited knowledge serves as a barrier to filter information. A hypothesis that emerged from this article, which may be object of future studies, is the potential of health education to raise awareness regarding cigarette smoking among people of the psychiatric and general population as awareness is an important step towards behaviors change.

Complementing the discussion regarding educational level, greater frequency of people who agree with the statements “Allow psychiatric patients to smoke is a way for health workers to feel safe from aggressions” and “In mental health services, the cigarette is used to encourage the psychiatric patient to participate in therapeutic activities (groups, workshops, etc.) was identified among older participants. It is possible that this occurred due to lower educational level identified among people with 60 years old or more. In addition, less access to information from new technologies such as social media may interfere in the acquisition of knowledge by this public.

The opinion regarding the use of cigarettes to promote dialogue between patients and professionals was more frequent among people with severe mental disorders, with 12 years or more of psychiatric diagnosis, with a history of psychiatric hospitalizations, and smokers. The profile of people who share this opinion is similar to the profile of smokers in the psychiatric population, as evidenced in other studies [28].

As the concepts learned throughout daily life have the potential to interfere in people's motivations to smoke tobacco, it is necessary to understand the opinions and how the attitudes of mental health professionals are perceived, both by psychiatric and general population. An example was the report of two people admitted to the psychiatric hospital who said that had started smoking during their current hospitalization.

Since tobacco smoking is seen as positive because some people erroneous thinks that it improves psychiatric symptoms and favors dialogue, this leads to an acceptance of this behavior by the community, making the behavior modification difficult. To intervene in the high prevalence of smokers among the psychiatric population, it is first necessary to know the opinions that this population has on the subject in order to use adequate health education strategies to combat erroneous or mistaken knowledge that persists among these people.

As long as mental health services persist in reproducing the asylum culture in which cigarettes are placed at the center of care, there are few opportunities for re-education and construction of new concepts, attitudes and behaviors. New experiences must be adopted in these services so that patients have the opportunity to realize that they can have pleasant experiences without cigarettes.

As a limitation of this study, it has been conducted in a single psychiatric hospital, a Mental Health Outpatient Unit and a Primary Health Unit.

CONCLUSION

In conclusion, both people from the psychiatric population and people from general population agree that cigarette is used in mental health services to try to contain aggressive attitudes and that the ban of smoking can aggravate the symptoms of individuals.

Opinions related to tobacco use as a care instrument (to facilitate the dialogue between patient and health worker and encourage the patient to adhere to drug therapy and to participate in groups and workshops) prevailed among those hospitalized in the psychiatric hospital, possibly because they were experiencing this reality at the time of interview.

Among the personal and clinical variables, age, educational level, presence of somatic comorbidities, diagnosis, duration of diagnosis, history of hospitalizations and current tobacco smoking were associated with some of the opinions and perception of attitudes, showing that personal characteristics and experiences interfere with what is believed and perceived.

Implications for Mental Health Nurses

Tobacco smoking in mental health services directly involves the nursing staff due to greater contact with patients, both through the established interpersonal relationships and the time they spend with them in the service. Historically, this proximity has led nurses to use cigarettes as a “care instrument” in an attempt to facilitate dialogue between health professionals and patients, control their behavior and encourage them to take medication and participate in groups. Reflecting on the beliefs related to smoking by the psychiatric population is essential for the nursing team, as they interfere in daily practice and in the perpetuation of the smoking culture. Nursing is the key team to promote change.

It is hoped that this study will contribute to the practice of psychiatric nursing and other members of the health team by revealing the views of the psychiatric population and the general population regarding smoking ban in mental health services and that it will encourage the development of programs and policies that aim to encourage the restriction of smoking, enabling positive impacts on the health of people with mental disorders.

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