Behavioral Psychology / Psicología Conductual, Vol. 31, Nº 3, 2023, pp. 597-611
https://doi.org/10.51668/bp.8323309n

MENTAL HEALTH STIGMA IN SPANISH UNIVERSITY STUDENTS

Sandra Arnáez[1], Antonio Chaves[2], Gema Del Valle[3]
and Gemma García-Soriano[2]
[1]University of Zaragoza; [2]University of Valencia; [3]Hospital of Sagunto (Spain)

Abstract

Knowledge about mental health problems and previous contact are key variables in the fight against stigma. The aims of the study were: (1) to explore the level of stigma associated with mental disorders in students of different university degrees, and (2) to analyze the evolution of stigma in psychology students. Two groups completed the Attribution Questionnaire (AQ-27). Group 1 consisted of 392 first-year students of the different degrees evaluated ($M_{age=}$ 18.59 years, *SD*= 1.29, 60% female), and group 2 consisted of 152 third-year Psychology undergraduates (M_{age}= 24.35 years, *SD*= 8.97, 73.4% female). Group 1 students with previous contact with mental disorders showed fewer stigmatizing attitudes. Differences were observed according to grade level. Group 2 showed lower levels of stigma throughout the academic year. The results support the effectiveness that mental health education and awareness-raising interventions through contact with people with mental health problems can have in reducing stigma.
KEY WORDS: *stigma, mental health, Attribution Questionnaire, university students, contact*.

Resumen

El conocimiento sobre los problemas de salud mental y el contacto previo son variables clave en la lucha contra el estigma. Los objetivos del estudio fueron: (1) explorar el nivel de estigma asociado a los trastornos mentales en estudiantes de diferentes Grados universitarios y (2) analizar la evolución del estigma en estudiantes de Psicología. Dos grupos completaron el "Cuestionario de atribución" (AQ-27). El grupo 1 compuesto por 392 estudiantes de primer curso de los diferentes grados evaluados (M_{edad}= 18,59 años; *DT*= 1,29; 60% mujeres), y el grupo 2 por 152 estudiantes de tercer curso de Psicología (M_{edad}= 24,35 años; *DT*= 8,97; 73,4% mujeres). Los estudiantes del grupo 1 con contacto previo con trastornos mentales mostraron actitudes menos estigmatizantes. Se observaron diferencias en función del Grado cursado. El grupo 2 mostró menores niveles de estigma a lo largo del curso académico. Los resultados apoyan la eficacia que la formación en salud mental y las intervenciones de sensibilización mediante el

This publication is part of the I+D+i project RTI2018-098349-B-I00, funded by MCIN/ AEI/10.13039/501100011033/ and by FEDER Una manera de hacer Europa.

Correspondence: Gemma García-Soriano, Facultad de Psicología y Logopedia, University of Valencia, Av. Blasco Ibáñez, 21, 46010 Valencia (Spain). E-mail: gemma.garcia@uv.es

contacto con personas con problemas de salud mental, pueden tener en la reducción del estigma.
PALABRAS CLAVE: *estigma, salud mental, Cuestionario de atribución, estudiantes universitarios, contacto*.

Introduction

Stigma associated with mental health problems is a common problem for people with mental health problems and their families (Alonso et al., 2009; Cole et al., 2011; Luoma et al., 2007; Thornicroft et al., 2022). People with a diagnosis of mental disorder are often seen as violent, dangerous, unpredictable or to blame for their mental disorder, and difficult to communicate with (Crisp et al., 2000; Link et al., 1999; Peluso and Blay, 2009; Pescosolido et al., 1999; Yap & Jorm, 2011; Wang & Lai, 2008). This perception of violent and dangerous people has also been linked to an increased desire for social distance (Link et al., 1999). The current terminology we use when referring to people with a mental health problem can have negative connotations. Different terms are used in the literature to refer to mental health conditions such as mental illness, psychiatric disorder, mental disorder, or people with mental health conditions (Thornicroft et al., 2022). Throughout this paper we will use the terms people with mental health problems or diagnosed with mental disorder.

Recently, the Lancet Commission on Ending Stigma and Discrimination in Mental Health, based on a systematic review of the literature, and the results of a survey of people with mental health problems from a total of 45 countries, has described the significant negative impact that stigma has on personal (e.g. self-stigma, quality of life); structural (e.g. legal, human rights, psychosocial interventions); health and social care; and social and economic levels (e.g. employment). Concluding that stigma and discrimination contravene basic rights and have significant negative consequences for people with mental health problems by increasing their marginalisation and exclusion from society (Thornicroft et al., 2022). Stigma is associated with poorer quality of life and more social limitations (Alonso et al., 2009; Luoma et al., 2007), generates emotional distress in patients and affects patients' self-regard. As Corrigan's study (2004) highlights, people with mental health problems internalise stigma, which leads to a deterioration in self-esteem, feelings of self-efficacy and shame. Moreover, stigma leads to concealment of the disorder and constitutes one of the main barriers to seeking professional help (Clement et al., 2015; del Valle et al., 2017, 2018; García-Soriano et al., 2014; Gutierrez et al., 2020; Issakidis & Andrews, 2002; Lorian & Grisham, 2011), resulting in increased chronicity of mental disorders and patients experiencing increasing discomfort and limitations in their lives.

Young people are vulnerable to stereotypes and prejudices towards people with mental disorders (Adlaf et al., 2009; Rodriguez et al., 2016; Yoshioka et al., 2014). Corrigan et al. (2005) found that adolescents perceived patients as responsible for their mental problem and dangerous. Perceived responsibility was

also associated with feeling more anger towards them and this anger reduced the help provided, while perceived dangerousness was associated with experiencing more fear towards them and avoiding them. This attitude was also present in adolescents who had contact with people with mental disorders, which is attributed by the authors to a possible lack of knowledge about mental health or the type of contact established. Similarly, Peluso and Blay (2009) found that being of a young age made the presence of negative reactions and emotions towards people with depressive disorder more likely. In the same vein, Bradbury (2020) recently observed that people over the age of 40 had less stigmatising attitudes towards people with a diagnosis of generalised anxiety and schizophrenia than the 16-18 age group. These authors relate this result to the fact that young people may have less information and less contact or experience with people affected by mental health problems. In line with these studies, the literature has analysed the influence on stigma of both knowledge about mental disorders and contact with people suffering from them.

Regarding the first of these two variables, there are studies carried out with a university population that reflect the presence of a high level of ignorance about mental health (Furnham et al., 2011; Ozamiz-Etxebarria et al., 2022). When comparing the stigma present in psychology students with students from other faculties, it has been found that the latter had a more negative perception of people with mental health problems, reacted worse emotionally to them and showed more avoidance behaviours (Bannatyne & Stapleton, 2017; Ruíz et al., 2022; Saavedra & Murvatian, 2021). Studies that have compared students who begin their psychology studies with students who have advanced in their degree and, therefore, have taken subjects related to the clinical or practical part, have obtained that there are either no differences in the level of stigma, remaining at a mild or moderate level (Fresán et al., 2012) or it decreases when acquiring knowledge, but still persists to a significant degree (Economou et al., 2017; Grandón et al., 2022).

In relation to the influence of previous contact with people with mental disorders, there are studies that have shown that contact alone does not ensure a reduction in stigma, as stigma does not decrease when a person with a mental disorder is known (Crisp et al., 2000; Yap & Jorm, 2011). In this sense, other studies point out that it is not the fact of knowing a person with a mental health problem, but the fact that it is someone close to the person and with whom they live, that is associated with less stigmatising attitudes (Ruiz et al., 2022). In fact, when the person diagnosed with a mental disorder belongs to the close environment, stigma influences the type and quality of help provided by the young population, so that Yap and Jorm (2011) observed that the consideration of dangerousness and unpredictability favoured seeking professional help on behalf of the person, while social distance and the consideration of weakness led to less useful help being provided and was even less conducive to seeking professional help. De Sousa et al. (2012) conducted a study with relatives of patients with schizophrenia, who showed a positive and low stigmatising attitude that could be associated with regular contact with the patients. However, they showed a high level of coercion which, according

to the authors, could reflect a hidden stigma that negatively influenced the patient's self-determination. Family members with a low level of education were more distressed, which could imply that formal education and more information on mental health would contribute to better management of the disorder.

Other studies have jointly addressed the influence of both variables. Matteo and You (2012) found that the transmission of information about myths and stereotypes did not decrease social distance, whereas contact with people with mental disorders did. On the other hand, Ahuja et al. (2017) conducted a study with university students who were given information about mental disorders and had contact with people with mental health problems. The combination of both strategies reduced stereotypes and negative views of mental disorders. Although positive attitudes were generally maintained at the one-week follow-up, not all benefits persisted and even social restraint returned to pre-study levels. In the same vein, Coodin and Chisholm (2001) showed that medical students' attendance at a workshop on schizophrenia given by a psychiatrist, which also included a patient talking about his or her own experience, had positive effects on reducing stigmatising attitudes towards schizophrenia. On the other hand, nursing students showed a decrease in stigmatising attitudes towards mental disorders and an increase in knowledge about mental disorders after taking a course on mental disorders together with a mental health internship (Sayols-Villanueva et al., 2015). Likewise, Wang and Lai (2008) found that the degree of stigma towards people with depression varied according to knowledge about the disorder and contact with people close to them with depression. However, these two variables did not influence the perception of people with depression as unpredictable and dangerous, which was rated as such by 45% and 20% of the sample, respectively.

Given that the literature offers contradictory and inconclusive results regarding the influence of knowledge about mental disorders and contact with patients, we set out to explore the relevance of both variables in stigma towards mental health problems. Specifically, the aims of this study were: (1) to analyse the levels of stigma towards mental health problems in students who have just started their university education taking into account previous contact with mental disorders and the selected university course, and (2) to explore the levels of stigma of students who have just started their university education in the degree in psychology (first year) in comparison with those of students who have started their third year; and furthermore, to compare third-year students before starting and after completing the third year (the third year includes the subjects of psychopathology and psychological intervention and treatment).

Method

Participants

The sample consisted of 544 university students divided into two groups. The first group consisted of 392 first-year undergraduate students with a mean age of

18.59 years (*SD*= 1.29; 60% female). This first group was made up, in turn, of 98 psychology degree students (M_{age}= 18.92 years, *SD*= 1.59, 86.7% female), 142 philology degree students (M_{age}= 18.36, *SD*= 1.10, 79.6% female), and 152 students in different engineering degrees (M_{age}= 18.59, *SD*= 1.18, 25% female). The students in the different degrees did not differ in terms of previous contact with close relatives with mental health problems, χ^2 (2, *N*= 392)= 4.521, *p*= .104. The second group of students consisted of 152 third-year psychology undergraduates, with a mean age of 24.35 years (*SD*= 8.97, 73.4% female). Table 1 shows the descriptive statistics for both groups.

Table 1
Descriptive statistics of participants

Variables	Group 1 (*N*= 392)	Group 2 (*N*= 152)
Age (*M* and *SD*)	18.59 (1.29)	24.35 (8.97)
Sex		
Male	39.8%	26.6%
Female	60.2%	73.4%
Previous contact with mental health		
Yes	38.3%	47.9%
No	61.7%	52.1%
Degree		
Psychology	25.0%	100%
Engineering	36.2%	
Philology	38.4%	
AQ-27 (*M* and *SD*)		
Responsibility	9.07 (3.20)	8.84 (3.12)
Pity	18.01 (3.94)	17.40 (3.60)
Anger	9.24 (4.15)	8.35 (3.69)
Danger	12.53 (4.89)	10.97 (4.09)
Fear	10.26 (5.55)	8.05 (4.08)
Help	21.96 (4.02)	24.00 (3.19)
Coercion	19.79 (4.24)	18.48 (4.75)
Segregation	11.16 (5.07)	9.04 (4.30)
Avoidance	17.07 (5.34)	12.58 (4.75)

Note: Group 1= First year students in degrees in psychology, philology and different branches of engineering; Group 2=- Third year psychology degree students (*N*= 152); AQ-27= Attribution Questionnaire-27.

Instruments

a) *Ad hoc demographic questionnaire*. Data were collected on sex, age, and previous contact with mental health problems (i.e., "Has any close family member suffered or suffers from a mental health problem?").
b) *Attribution Questionnaire* (AQ-27; Corrigan et al., 2003), Spanish version by Muñoz et al. (2015). The AQ-27 was used to assess stigma towards people with mental disorders. The AQ-27 is a self-administered questionnaire that assesses,

through 27 questions grouped into nine subscales, stigmatising attitudes and beliefs towards people with mental disorders: Responsibility ("I would think it is John's fault that he is in his current situation"), Pity ("I would feel sorry for John"), Anger ("I would feel violent because of John"), Danger ("I would feel unsafe around John"), Fear ("John would terrify me"), Help ("I would be willing to talk to John about his problem"), Coercion ("If I were in charge of John's treatment, I would demand that he take his medication"), Segregation ("I think John poses a risk to his neighbours if he is not hospitalised") and Avoidance ("If I were an employer, I would interview John for a job"). Each question is answered on a Likert-type scale ranging from 1 to 9 where higher scores indicate a higher value for the item or factor. The score for each subscale is obtained by adding the three questions corresponding to that subscale, so the values for each scale range from 3 to 27. The higher the score, the higher the stigmatising attitudes, except for the Helping scale. The Spanish validation of the AQ-27 showed good psychometric properties (Muñoz et al., 2015). In our study, two of the AQ-27 subscales showed poor internal consistency (Responsibility and Pity), while the others showed acceptable to good internal consistency (Cronbach's alpha between .64 [Coercion] and .92 [Fear]).

Procedure

We went to different classrooms of a Spanish public university where students were taught during the first weeks of the academic year. In the classroom, students were invited to participate in the study by completing the assessment instrument and demographic data. In the case of third-year psychology degree students, they were assessed at three different times during the academic year: (a) at the beginning of the course; (b) 15 days after attending a 2-hour awareness conference on mental health given by an association of people with severe mental health problems and their relatives, in which a professional from the association, a patient and a relative participated, and (c) 9 months after finishing the course, having taken the subjects of psychopathology and psychological intervention and treatment (90 teaching hours). This study was approved by the Human Research Ethics Committee of the University of Valencia (H1543236533190).

Data analysis

All analyses were performed with SPSS version 26 (IBM SPSS, Chicago, IL, USA). First, descriptive statistics and frequency distributions were calculated. A student's t-test (continuous variables) was used to analyse differences between independent groups. On the other hand, a univariate analysis of covariance (ANCOVA) was carried out to eliminate pretest differences between groups in case they were significant. Subsequently, a repeated measures ANOVA was performed to compare the mean values of each variable over 3 time points. Post-hoc tests with Bonferroni correction were used to identify between which groups statistically significant

differences were observed. To calculate effect sizes, partial eta squared values (i.e., small η_p^2= .01; medium η_p^2= .06; large η_p^2= .14) and Cohen's *d* (i.e., small *d*= .2; medium *d*= .5; large *d*= .8) were used (Cohen, 1988).

Results

The level of stigma associated with mental health problems among students of different university Degrees

The AQ-27 scales that showed the highest scores among university students (group 1) were Helping (*M*= 21.96, *SD*= 4.02) and Coercion (*M*= 19.76, *SD*= 4.24) (Table 2). Statistically significant differences were only observed between males and females in Helping (Females: *M*= 22.83, *SD*= 3.62; Males: *M*= 20.66, *SD*= 4.24, *t*(390)= 5.406, *p* <.001) and Avoidance (Women: *M*= 17.61, *SD*= 5.42; Men: *M*= 16.24, *SD*= 5.12, *t*(390)= 2.511, *p*= .012), with women scoring higher on both scales. Regarding previous contact with mental disorders, university students who had had previous contact showed a lower level of stigma, with significantly lower scores on the Responsibility, Anger, Dangerousness, Fear, Coercion and Segregation scales, and higher scores on the Avoidance and Helping scales, although effect sizes were small.

Table 2
Differences in the level of stigma among students of different grade levels as a function of previous contact with mental health problems

Attribution Questionnaire-27	Previous contact with mental health problems				*t* (390)	*p*	*d*
	Yes (*n*= 150)		No (*n*= 242)				
	M	*SD*	*M*	*SD*			
Responsibility	8.63	3.22	9.34	3.17	2.15	.031	.22
Pity	17.96	4.20	18.04	3.78	.18	.851	.02
Anger	8.26	3.99	9.86	4.13	3.76	<.001	.39
Danger	11.65	4.67	13.08	4.96	2.84	.005	.29
Fear	9.11	5.25	10.97	5.61	3.26	.001	.34
Help	22.67	3.97	21.53	3.99	2.74	.006	.28
Coercion	19.18	4.49	20.16	4.05	2.23	.026	.22
Segregation	10.16	5.04	11.79	5.00	3.11	.002	.32
Avoidance	18.09	5.30	16.43	5.27	3.01	.003	.31

Depending on the university degree, and controlling for previous contact with mental disorders, significant differences were observed in the Anger, Dangerousness, Fear, Segregation, Avoidance and Helping scales, although with moderate or low effect sizes, except in the Helping scale which was high. In general, philology students showed higher levels of stigma and psychology students showed a higher tendency towards Helping (Table 3).

Table 3
Differences in the level of stigma according to undergraduate studies

AQ-27	Psychology (*n*= 98)		Philology (*n*= 142)		Engineering (*n*= 152)		$F_{(3, 391)}$	*p*	η_p^2
	M	*SD*	*M*	*SD*	*M*	*SD*			
Responsibility	8.89	3.26	8.92	3.14	9.33	3.23	2.12	.096	.01
Pity	17.80	3.93	18.65	3.78	17.55	4.05	2.04	.107	.01
Anger	8.28_a	3.43	9.88_b	4.16	$9.28_{a.b}$	4.45	7.07	<.001	.05
Danger	12.05	4.37	13.09	5.14	12.32	4.95	3.43	.017	.02
Fear	9.78	5.03	11.05	6.02	9.84	5.35	4.71	.003	.03
Help	23.76_a	2.79	22.07_b	4.14	20.71_c	4.13	14.85	<.001	.10
Coercion	19.44	3.95	20.14	4.31	19.68	4.36	2.06	.105	.01
Segregation	10.51	4.75	11.70	5.21	11.08	5.11	3.93	.008	.03
Avoidance	17.16	5.63	17.19	5.178	16.89	5.33	3.15	.025	.02

Notes: AQ-27= Attribution Questionnaire-27. a,b,c= Indicates significant differences among groups ($p \leq .05$).

Evolution of the level of stigma associated with mental health problems among Psychology Degree students

Students who had completed the third year scored significantly lower than first year students on the Anger, Danger, Fear, Coercion, Segregation and Avoidance scales and had high effect sizes (Table 4).

Table 4
Differences in the level of stigma between students who had just started the first year and those who had finished the third year of the Degree in Psychology

Attribution Questionnaire-27	At the beginning of the first year (*n*= 98)		At the final of 3rd year (*n*= 91)		$t_{(187)}$	*p*	*d*
	M	*SD*	*M*	*SD*			
Responsibility	8.89	3.26	8.52	2.82	.83	.405	.12
Pity	17.80	3.93	16.91	3.68	1.58	.114	.23
Anger	8.28	3.43	7.03	3.45	2.48	.014	.36
Danger	12.05	4.37	9.11	4.14	4.73	<.001	.69
Fear	9.78	5.03	6.95	3.84	4.32	<.001	.63
Help	23.76	2.79	23.86	2.93	.24	.807	.03
Coercion	19.44	3.95	16.96	4.69	3.94	<.001	.57
Segregation	10.51	4.75	7.56	4.10	4.54	<.001	.66
Avoidance	17.16	5.63	10.27	5.25	8.64	<.001	1.26

Among third-year students, stigma levels decreased over the course of the year. After the awareness lecture, scores on the Anger, Fear, Dangerousness, Coercion, Segregation and Avoidance scales decreased. After the end of the course, scores on the Responsibility, Anger, Coercion, Coercion and Avoidance scales decreased. In addition, effect sizes were generally high (Table 5).

Table 5
Evolution of the stigma levels of third-year Psychology Degree students

Attribution Questionnaire-27	Before the awareness-raising talk (*n*= 59)		After the awareness-raising talk (*n*= 59)		At the end of the third-year (*n*= 59)		$F_{(2, 116)}$	*p*	η_p^2
	M	*DT*	*M*	*DT*	*M*	*DT*			
Responsibility	9.05	3.10	9.54	3.35	8.38	3.00	3.53	.032	.05
Pity	17.32	3.41	17.21	3.55	17.01	3.55	.28	.754	.00
Anger	8.71_a	3.40	7.24_b	3.24	6.94_b	3.10	8.74	<.001	.13
Danger	11.12_a	3.94	9.22_b	4.12	9.46_b	3.87	6.98	.001	.10
Fear	8.47_a	3.96	6.72_b	3.84	7.03_b	3.48	6.74	.002	.10
Help	23.77	2.18	24.40	2.54	24.00	2.51	2.42	.093	.04
Coercion	18.74_a	4.29	17.36_b	4.27	17.31_b	4.21	5.80	.004	.09
Segregation	9.47_a	4.15	6.94_b	3.20	7.52_b	3.70	15.06	<.001	.21
Avoidance	12.33_a	4.20	13.92_b	3.28	10.31_c	5.10	19.26	<.001	.25

Note: a, b and c indicate significant differences between means.

Discussion

The results obtained reflect the presence of stigmatising attitudes towards mental health problems in the university students evaluated, which is manifested above all in the degree of coercion. This stigma was lower in students who reported having previous contact with close relatives with a diagnosis of mental disorder, reflected in a lower perception of responsibility and dangerousness, lower reactions of anger, fear, coercion and segregation, and more helping behaviours. This result corroborates other studies in which familiarity reduced perceived dangerousness and social distance (Angermeyer et al., 2004), but contrasts with studies in which contact did not reduce or even increased stigma (Crisp et al., 2000; Corrigan et al., 2005; Yap & Jorm, 2011). Perhaps because the difference is not in the contact itself, but in the type of contact with the person with mental health problems. In this case, we asked about close relatives with mental health problems. Likewise, it is observed that attitudes towards mental health problems differ between those who choose to study one university degree or another, with psychology students showing a greater willingness to help people with mental health problems.

On the other hand, our results also show that increased knowledge about mental disorders and mental health contributes to lower levels of stigma, which confirms the importance of improving mental health education. Third year students showed lower levels of stigma than first year students, and their level of stigma also decreased throughout the course and after the awareness conference. These results contrast with studies that have found that knowledge either does not change or even increases social distance from patients with schizophrenia (Angermeyer et al., 2009). It is worth noting that not all knowledge that is transmitted reduces stigma. In fact, Mann and Himelein (2008) found that the traditional method of teaching psychopathology based on symptoms and diagnosis did not improve stigma,

whereas a more humanising approach to teaching did. Similarly, Economu et al. (2017) have highlighted the difference between knowledge and education in mental health, whereby knowing about a given psychological problem does not necessarily imply having appropriate attitudes and beliefs towards it. On the other hand, it should be considered that the transmission of knowledge may not influence in the same way depending on the type of mental disorder. Takeuchi and Sakagami's (2018) study with international university students found that knowledge differentially influenced perceived stigma in schizophrenia and depressive disorder. While knowledge decreased stigma for depressive disorder, it increased stigma for schizophrenia.

It could be thought that knowledge or contact alone would not be enough to reduce stigma. In fact, there are authors who claim that offering information without strategies aimed at contact can increase stigma instead of decreasing it (Fresán et al., 2012), while other authors find that prior contact would generate a change in opinion towards people with mental disorders if it is established when they have already received or are receiving training related to mental health (Barroso-Hurtado & Mendo-Lázaro, 2018). This is why it would be necessary to design intervention programmes that include both variables. On the one hand, the educational component should include not only information about the characteristics of the disorder, as this does not seem to be sufficient in people who already have some knowledge about mental health (Saavedra & Murvatian, 2021), but also information that helps to dismantle the myths, stereotypes and distorted beliefs associated with mental disorders. On the other hand, promoting greater contact with people suffering from mental health problems would allow for a closer and more humanising approach to mental health and to perceive them as integrated people with active participation in society. The combination of both components (i.e., information and contact) would favour a more comprehensive approach and thus help to better combat stigma. Since stigma differs according to mental disorder (Pescosolido et al., 1999), it would be important to further investigate how stigma is reflected in different mental disorders and thus design specific intervention programmes.

In the present study it has been found that stigma is very present among the young population. It is particularly interesting to study the level of stigma in this group, in order to develop and direct anti-stigma programmes towards them, as they are the professionals who in the future will work in close contact with individuals with mental health problems. The situation is worrying if we take into account that this stigma could become entrenched or increase in adulthood and if these young people come into professions that involve contact with people diagnosed with a mental disorder, such as health or education professions. In fact, there are studies that have proven the existence of stigma among primary care physicians, especially young people with little exposure to mental disorders (Kluemper et al., 2021) and among mental health professionals with the consequent negative impact on the patients they see (Valery & Prouteau, 2020; Wang et al., 2018). In line with the studies by Rodríguez et al. (2016) and Wong et al. (2019), it

would be important to widely implement intervention programmes aimed at adolescents to reduce stigma early on. However, as Henderson and Gronholm (2018) point out, in order for anti-stigma programmes to be effective in the long term, they should cover broad sectors of the population given that stigma is a very complex concept that manifests itself in a very widespread way. In this regard, the influence of social networks on young people is very relevant given their high use of them. A study by Robinson et al. (2019) has verified the high level of stigma present in social networks, so it would be important to explore the image of mental disorders that is transmitted through them in more detail and ensure that they offer a rigorous and respectful image.

This study is not without limitations. Firstly, although stigma levels decreased in third-year psychology students after the awareness-raising talk and having taken the psychopathology and psychological intervention and treatment subjects, it cannot be concluded that the results responded to these variables as no comparison was made with students who had not received the talk or taken these subjects. Secondly, the reduction in stigma obtained does not allow us to affirm that there has been an increase in positive attitudes towards people with mental disorders, although the increase in helping attitudes would point in this direction.

By way of conclusion, the results of this study suggest that stigma towards mental health problems differs depending on the university studies undertaken, with a greater tendency to help in students who choose to study psychology. In addition, familiarity or previous contact with people with mental health problems favours less stigmatising attitudes. On the other hand, it is observed that training in mental health, through regulated subjects such as psychopathology and psychological intervention and treatment, and contact with a person diagnosed with a mental disorder, through an awareness-raising talk, are effective in reducing stigma in the university student population. It is necessary to continue working on interventions that reduce the stigma associated with mental problems, especially in the young university population, as they will be key agents in the fight against stigma, promoting acceptance and integration of people with mental disorders.

References

Adlaf, E. M., Hamilton, H. A., Wu, F., & Noh, S. (2009). Adolescent stigma towards drug addiction: Effects of age and drug use behaviour. *Addictive Behaviors, 34*, 360 364. doi: 10.1016/j.addbeh.2008.11.012

Ahuja, K. K., Dhillon, M., Juneja, A., & Sharma, B. (2017). Breaking barriers: An education and contact intervention to reduce mental illness stigma among Indian college students. *Psychosocial Intervention, 26*, 103-109. doi: 10.1016/j.psi.2016.11.003

Alonso, J., Buron, A., Rojas-Farreras, S., de Graaf, R., Haro, J.M., de Girolamo, G., Bruffaerts, R., Kovess, V., Matschinger, H., & Vilagut, G. (2009). Perceived stigma among individuals with common mental disorders. *Journal of Affective Disorders, 118*, 180-186. doi: 10.1016/j.jad.2009.02.006

Angermeyer, M., Holzinger, A., & Matschinger, H. (2009). Mental health literacy and attitude towards people with mental illness: A trend analysis based on population surveys in the eastern part of Germany. *European Psychiatry, 24*, 225-32. doi: 10.1016/j.eurpsy.2008.06.010

Angermeyer, M. C., Matschinger, H., & Corrigan, P. W. (2004). Familiarity with mental illness and social distance from people with schizophrenia and major depression: Testing a model using data from a representative population survey. *Schizophrenia Research, 69*, 175-82. doi: 10.1016/S0920-9964(03)00186-5

Bannatyne, A. J., & Stapleton, P. B. (2017). Attitudes towards anorexia nervosa: Volitional stigma differences in a sample of pre-clinical medicine and psychology students. *Journal of Mental Health, 26,* 442-448. doi: 10.3109/09638237.2016.1149801

Barroso-Hurtado, D., & Mendo-Lázaro, S. (2018). La relevancia de la formación y el contacto previo en la opinión de estudiantes universitarios sobre las personas con trastorno mental [The relevance of education and previous contact in the opinion of university students about people with mental disorders]. *Electronic Journal of Research in Education Psychology, 16*(44), 59-78. doi: 10.25115/ejrep.v16i44.1937

Bradbury, A., 2020. Mental health stigma: The impact of age and gender on attitudes. *Community Mental Health Journal 56*, 933-938. doi: 10.1007/s10597-020-00559-x

Clement, S., Schauman, O., Graham, T., Maggioni, F., Evans-Lacko, S., Bezborodovs, N., Morgan, C., Rüsch, N., Brown, J. S. L., & Thornicroft, G. (2015). What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological Medicine, 45*, 11-27. doi: 10.1017/S0033291714000129

Cohen, J. (1988). *Statistical power analysis for the behavioural sciences*. Hillside.

Cole, J., Logan, T. K., & Walker, R. (2011). Social exclusion, personal control, self-regulation, and stress among substance abuse treatment clients. *Drug and Alcohol Dependence, 113*, 13-20. doi: 10.1016/j.drugalcdep.2010.06.018

Coodin, S., & Chisholm, F. (2001). Teaching in a New Key: Effects of a co-taught seminar on medical students' attitudes toward schizophrenia. *Reports, 24*, 299-302. doi: 10.1037/h0095082

Corrigan, P. (2004). How stigma interferes with mental health care. *American Psychologist, 59*, 614-625. doi: 10.1037/0003-066X.59.7.614

Corrigan, P., Demming, B., Goldman, H., Slopen, N., Medasani, K., & Phelan, S. (2005). How adolescents perceive the stigma of mental illness and alcohol abuse. *Psychiatric Services, 56*, 544-550. doi: 10.1176/appi.ps.56.5.544

Crisp, A. H., Gelder, M. G., Rix, S., Meltzer, H. I., & Rowlands, O. J. (2000). Stigmatisation of people with mental illnesses. *British Journal of Psychiatry, 177*, 4-7.

de Sousa., S., Marques, A., Curral., R., & Queirós, C. (2012). Stigmatizing attitudes in relatives of people with schizophrenia: A study using the Attribution Questionnaire AQ-27. *Trends in Psychiatry and Psychotherapy, 34*, 186-197. doi: 10.1590/S2237-60892012000400004

del Valle G., Carrió C., & Belloch A. (2018). Fases temporales y variables motivacionales: dos perspectivas complementarias en el proceso de búsqueda de ayuda por enfermedad mental [Time phases and motivational variables: two complementary perspectives on

the process of help-seeking in mental illness]. *Revista de Psiquiatría y Salud Mental, 11,* 176-183.

del Valle, G., Belloch, A., & Carrió, C. (2017). The long and complex road in the search for treatment for mental disorders: An analysis of the process in five groups of patients. *Psychiatry Research, 253*, 1-8. doi: 10.1016/j.psychres.2017.03.024

Economou, M., Peppou, L. E., Geroulanou, K., Kontoangelos, K., Prokopi, A., Pantazi, A., Zervakaki, A., & Stefanis, C. N. (2017). Attitudes of psychology students to depression and its treatment: Implications for clinical practice. *Psychiatriki, 28*, 46-53. doi: 10.22365/jpsych.2017.281.46

Fresán, A., Robles, R., Cota, M., Berlanga, C., Lozano, D., & Tena, A. (2012). Actitudes de mujeres estudiantes de psicología hacia las personas con esquizofrenia: Relación con la percepción de agresividad y peligrosidad [Attitudes of female psychology students towards people with schizophrenia: Relationship to perceptions of aggression and dangerousness]. *Salud Mental, 35*, 215-223.

Furnham, A., Cook, R., Martin, N., & Batey, M. (2011). Mental health literacy among university students. *Journal of Public Mental Health, 10*, 198-210. doi: 10.1108/17465721111188223

García-Soriano, G., Rufer, M., Delsignore, A., & Weidt, S. (2014). Factors associated with non-treatment seeking in OCD sufferers: A review of the literature. *Psychiatry Research, 220*, 1-10. doi: 10.1016/j.psychres.2014.07.009

Grandón, P., Masedo, A., Saldivia, S., Romero-López-Alberca, C., Bustos, C., Vielma, A., Siprian Castro-Alzate, E., Hervías-Ortega, F., & Moreno-Küstner, B. (2022). Stigma toward people with severe mental disorder in university students before and after their practicum program in mental health. *Professional Psychology: Research and Practice, 53*(1), 14-22. doi: 10.1037/pro0000415

Gutierrez, D., Crowe, A., Mullen, P. R., Pignato, L., & Fan, S. (2020). Stigma, help seeking, and substance use. *The Professional Counselor, 10*, 220-234. doi: 10.15241/dg.10.2.220

Henderson, C., & Gronholm, P. C. (2018). Mental health related stigma as a ´wicked problem´: The need to address stigma and consider the consequences. *International Journal of Environmental Research and Public Health, 15*, 1158. doi: 10.3390/ijerph15061158

Issakidis, C., & Andrews, G. (2002). Service utilisation for anxiety in an Australian community sample. *Social Psychiatry & Psychiatric Epidemiology, 37*, 153-163. doi: 10.1007/s001270200009

Kluemper, A., Heath, L., Loeb, D., Kroehl, M., & Trinkley, K. (2021). Depression-related stigma among primary care providers. *Mental Health Clinician, 11*, 175-80. doi: 10.9740/mhc.2021.05.175

Link, B. G., Phelan, J.C., Bresnahan, M., Stueve, A., & Pescosolido, B. A. (1999). Public conceptions of mental illness: Labels, causes, dangerousness, and social distance. *American Journal of Public Health, 89*, 1328-1333.

Lorian, C.N., & Grisham, J.R. (2011). Clinical implications of risk aversion: An online study of risk-avoidance and treatment utilization in pathological anxiety. *Journal of Anxiety Disorders, 25*, 840-848. doi: 10.1016/j.janxdis.2011.04.008

Luoma, J. B., Twohing, M. P., Waltz, T., Hayes, S. C., Roget, N., Padilla, M., & Fisher, G. (2007). An investigation of stigma in individuals receiving treatment for substance abuse. *Addictive Behaviors, 32*, 1331-1346. doi: 10.1016/j.addbeh.2006.09.008

Mann, C. E., & Himelein, M. J. (2008). Putting the person back into psychopathology: An intervention to reduce mental illness stigma in the classroom. *Social Psychiatry & Psychiatric Epidemiology, 43*, 545-551. doi: 10.1007/s00127-008-0324-2

Matteo., E. K., & You, D. (2012). Reducing mental illness stigma in classroom. *Teaching of Psychology, 39*, 121-124. doi: 10.1177/0098628312437720

Ozamiz-Etxebarria, N., de Azúa García, S., Gorrotxategi, M., & Cornelius-White, J. H. (2022). Reducing stigma towards mental disorder in social education students through case studies and problem-based learning. *Behavioral Psychology/Psicología Conductual, 30*(2), 465-481. doi: 10.51668/bp.8322208s

Peluso, E. T. P., y Blay, S. L. (2009). Public stigma in relation to individuals with depression. *Journal of Affective Disorders, 115*, 201-206. doi: 10.1016/j.jad.2008.08.013

Pescosolido, B. A., Monahan, J., Link, B. G., Stueve, A. & Kikuzawa, S. (1999). The public´s view of the competence, dangerousness, and need for legal coercion of persons with mental health problems. *American Journal of Public Health, 89*, 1339 1345.

Robinson, P., Turk, D., Jilka, S., & Cella, M. (2019). Measuring attitudes towards mental health using social media: investigating stigma and trivialisation. *Social Psychiatry & Psychiatric Epidemiology, 54*, 51-58. doi: 10.1007/s00127-018-1571-5

Rodríguez, M. C., Crespo, C. V., López, M. A. E., & Galdós, J. S. (2016). Intervención contra el estigma hacia personas con enfermedad mental en jóvenes de institutos del Sur de la Comunidad de Madrid [Intervention against stigma towards people with mental illness among young people in secondary schools in the south of the Community of Madrid]. En *Respuestas transdisciplinares en una sociedad global: aportaciones desde el Trabajo Social* (p. 52). University of La Rioja.

Ruiz, J. C., Fuentes-Durá, I., López-Gilberte, M., Dasí, C., Pardo-García, C., Fuentes-Durán, M. C., Pérez-González, F., Salmeron, L., Soldevila-Matías, P., Vila-Francés, J., & Balanza-Martínez, V., 2022. Public stigma profile toward mental disorders across different university degrees in the University of Valencia (Spain). *Frontiers in Psychiatry, 13*. doi: 10.3389/fpsyt.2022.951894

Saavedra, J., & Murvartian, L. (2021). Estigma público en salud mental en la universidad. *Universitas Psychologica, 20*, 1-15. doi: 10.11144/Javeriana.upsy20.epsm

Sayols-Villanueva, M., Ballester-Ferrando, D., Gelabert-Vilella, S., Fuentes-Pumarola, C., & Rascón-Hernán, C. (2015). El estigma de los trastornos mentales en los estudiantes de enfermería. *Revista de Enfermería y Salud Mental, 2*, 7-15.

Takeuchi, J., & Sakagami, Y. (2018). Stigma among international students is associated with knowledge of mental illness. *Nagoya Journal of Medical Science, 80*, 367-378. doi: 10.18999/nagjms.80.3.367

Thornicroft, G., Sunkel, C., Aliev, A. A., Baker, S., Brohan, E., El Chammay, R., Davies, K., Demissie, M., Duncan, J., Fekadu, W., Gronholm, P.C., Guerrero, Z., Gurung, D., Habtamu, K., Hanlon, C., Heim, E., Henderson, C., Hijazi, Z., Hoffman, C., ... Winkler, P. (2022). The Lancet Commission on ending stigma and discrimination in mental health. *The Lancet, 400*(10361), 1438-1480.

Valery, K. M., & Prouteau, A. (2020). Schizophrenia stigma in mental health professionals and associated factors: A systematic review. *Psychiatry Research, 290*, 113068. doi: 10.1016/j.psychres.2020.113068

Wang, J. L., & Lai, D. (2008). The relationship between mental health literacy, personal contacts and personal stigma against depression. *Journal of Affective Disorders, 110*, 191-196. doi: 10.1016/j.jad.2008.01.005

Wang, K., Link, B. G., Corrigan, P. W., Davidson, L., & Flanagan, E. (2018). Perceived provider stigma as a predictor of mental health service users' internalized stigma and disempowerment. *Psychiatry Research, 259*, 526-531. doi: 10.1016/j.psychres.2017.11.036

Wong, P. W., Arat, G., Ambrose, M. R., Qiuyuan, K. X., & Borschel, M. (2019). Evaluation of a mental health course for stigma reduction: A pilot study. *Cogent Psychology, 6*, 1595877. doi: 10.1080/23311908.2019.1595877

Yap, M. B. H., & Jorm, A. F. (2011). The influence of stigma on first aid actions taken by young people for mental health problems in a close friend or family member: Findings from an Australian national survey of youth. *Journal of Affective Disorders, 134*, 473-477. doi: 10.1016/j.jad.2011.05.039

Yoshioka, K., Reavley, N., MacKinnon, A. J., & Jorm, A. F. (2014). Stigmatising attitudes towards people with mental disorders: Results from a survey of Japanese high school students. *Psychiatry Research, 215*, 229-236. doi: 10.1016/j.psychres.2013.10.0

RECEIVED: SEPTEMBER 2, 2022
ACCEPTED: MARCH 8, 2023