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ORIGINAL PAPER

Mental Health Professionals' Attitudes to Severe Mental Illness and Its Correlates in Psychiatric Hospitals of Attica: The Role of Workers' Empathy

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Abstract
To describe mental health workers' attitudes to severe mental illness and to explore its socio-demographic and professional correlates, including the influence of empathy. A total of 127 mental health staff working on the psychiatric hospitals of Attica participated in the study. Stigma was assessed with the Attitudes to Severe Mental Illness scale (ASMI) and the Greek Social Distance scale; whilst Empathy with the Interpersonal Reactivity Index. Participants' unfavourable attitudes to severe mental illness were limited to pessimism about recovery, difficulty in viewing people with mental illness as similar to other people and desire to keep distance in intimate encounters. Professional group and personal experience with mental illness were found to predict stigma. Only perspective taking was associated with both stigma measures; while Fantasy was positively correlated with social distance. Anti-stigma interventions in mental healthcare should prioritize nurses and psychiatrists and aim at enhancing perspective taking.

Keywords Iatrogenic stigma · Mental health workers · Stereotypes · Perspective taking · Social distance

Introduction

The stigma surrounding mental illness and discriminatory behaviours ensuing from it have been shown to hinder the life opportunities of people with severe mental illness and their access to mental health services (Clement et al. 2015; Schulze and Angermeyer 2003; Thornicroft et al. 2009). Apart from exploring attitudes in the general population, research attention has been shifted to stigma in (mental) health care, the so-called "iatrogenic stigma" (Sartorius 2002).

The reasons for investigating mental health professionals' attitudes and behaviours are manifold. People with mental illness identify mental health services as notable sources of stigma and discrimination, with more than 38% of them internationally reporting feeling disrespected by mental health staff (Harangozo et al. 2014). This is of outmost importance, in light of evidence indicating that 76% of individuals with chronic mental illness acknowledge their healthcare providers being the most important persons in their lives (Borge et al. 1999). Moreover, mental health staff occupies crucial positions in treatment and rehabilitation of people with mental disorders. Consistent with this, their behaviour and attitudes have been linked to treatment outcome and quality of care (Holmqvist 2000a, b; Thornicroft 2008). Concomitantly, mental health professionals serve as role models and educators, shaping thus beliefs about mental disorders in the general population as well as future health care professionals (Gray 2002; Jorm et al. 2000; Sartorius 2002). Hence, their attitudes may have a multiplying effect in lay people and other professionals; while they may

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perpetuate stigma. Furthermore, their attitudes and beliefs may shed light on the effectiveness of different components of anti-stigma strategies. To date, education and contact have been shown to be the most promising venues for counteracting stigmatizing attitudes, at least in the short-term (Lauber et al. 2004; Mehta et al. 2015; Thornicroft et al. 2016; Yamaguchi et al. 2013). In this reasoning, mental health professionals, who have both the evidence-based education as well as frequent contact with patients with mental illness, are anticipated to have positive attitudes towards people with mental disorders [e.g. (Gras et al. 2015)].

Empirical body of knowledge indicates that it is too simple to assume that mental health personnel, as experts, hold more favourable attitudes towards people with mental illness (Nordt et al. 2006). A decade ago, Schulze (2007) reviewed existing literature on the intricate relationship between stigma and mental health staff. She concluded that while mental health professionals are knowledgeable about mental health issues, they do not always endorse positive views about people with mental disorders. Moreover, their attitudes are not largely different from those of the general population. On the contrary, Wahl and Aroesty-Cohen on their review (2010) were more optimistic about the attitudes of psychiatric professionals; however, they concluded that a mixture of favourable and unfavourable attitudes are observed among mental health professionals with substantial implications on their abilities to establish successful therapeutic relationships. Since then, other studies have echoed similar conclusions about the preponderance of negative attitudes among mental health professionals as well as the imperative need for further research so as to inform anti-stigma interventions tailored to mental health staff (Hansson et al. 2013; Stuber et al. 2014).

In the social psychology realm, the role of empathy in improving attitudes has long been recognized [e.g. (Batson et al. 1997; Pettigrew and Tropp 2008; Ramiah and Hewstone 2013)]. In a systematic review investigating the ways whereby intergroup contact reduces prejudice, Pettigrew and Tropp (2008) assessed the mediating role of intergroup anxiety, empathy/perspective taking and knowledge. Their findings indicated empathy and perspective taking yielded a strong mediational effect. Arguably, the magnitude of their effect was deemed stronger as compared to the other mediators; however, due to smaller overall sample size, the significance level for the mediation test was weaker than the corresponding for anxiety, calling for more research on the topic. In a similar vein, another review has stressed the importance of empathy in reducing prejudice through rendering group membership salient by remaining people how it feels like to be a member of an outgroup (Ramiah and Hewstone 2013).

In the field of mental health, a significant association between empathy and community attitudes to mental illness has been documented among medical students in Italy, with higher empathy levels being linked to better attitudes (Pascucci et al. 2017). In a similar vein, research on medical students has shown that the psychiatric clerkship may result in a substantial decline in empathy levels, which in turn may exert an influence on medical students' attitudes towards people with mental illness (Cutler et al. 2009). Apart from students, research on the association between empathy and iatrogenic stigma is scarce. One study in UK demonstrated that mental healthcare staff and non-mental healthcare staff display broadly similar attitudes towards people with mental illness as well as empathy levels; however, the association between empathy and attitudes was not directly pursued (Gateshill et al. 2011). On the contrary, a study on psychiatric nurses' attitudes to people with mental illness in Taiwan revealed an independent association between empathy and attitudes (Hsiao et al. 2015). Nonetheless, the study employed a 5-item instrument to assess attitudes, interrelations among facets of stigma and those of empathy were not explored and the sample was confined to mental health nurses. It merits noting that the importance of distinguishing between cognitive and affective aspects of empathy in future research of intergroup conflict and prejudice has also been raised by the systematic review of Pettigrew and Tropp (2008).

In this context and congruent with growing reports highlighting the importance of cultivating empathy in clinical practice, medical education and beyond (Kitanaka 2019), the present study aims to explore mental health professionals' beliefs and attitudes to severe mental illness in Athens area. Specifically, the study set out:

(1) To describe mental health professionals' beliefs, attitudes and desired social distance from people with severe mental illness
(2) To identify the socio-demographic and professionals predictors of professionals' attitudes and social distance
(3) To explore the associations between aspects of empathy and stigma measures, after controlling for the confounding effect of other variables (socio-demographic and professional characteristics)

Findings from this research will inform the design of an anti-stigma intervention targeting mental health professionals, in line with evidence indicating that interventions of this kind are uncommon in existing stigma literature (Thornicroft et al. 2016; Yamaguchi et al. 2013). Concomitantly, the study will also inform the design of interventions geared towards enhancing clinicians' empathy.

Methods

Setting and Participants

Mental health professionals were recruited from the two psychiatric hospitals of Attica: Dafni and Dromokaition Psychiatric Hospital. These two are among the top three psychiatric hospitals in the country in terms of number of beds for acute patients and number of admissions per year (Christodoulou et al. 2010). It merits noting that the highest percentages of involuntary hospitalizations are discerned in these two hospitals (Christodoulou et al. 2010). To be included into the study, participants had to be employed at the two hospitals. Participants working on volunteering basis and administrative personnel were excluded from the sample. Out of the 214 professionals who were contacted, 174 agreed to participate (response rate = 81.3%).

Professionals provided informed consent prior to filling up the questionnaire, their participation was anonymous and voluntary. The study was conducted in accordance with the ethical standards delineated in the Declaration of Helsinki.

Instrument

To assess professionals' stigma endorsement, the instrument consisted of the Attitudes to Severe Mental Illness scale (Madianos et al. 2012) and the Greek Social Distance scale (Economou et al. 2010). Empathy levels were assessed with the Interpersonal Reactivity Index (Davis 1980).

Attitudes to Severe Mental Illness Scale (Madianos et al. 2012)

The scale measures beliefs and attitudes towards people with severe mental illness and consists of 30 items rated on 4-point Likert scale (1: disagree, 2: rather disagree, 3: rather agree, 4: agree). The scale is composed of 4 factors: Stereotyping (11 items) which taps endorsement of stereotypical beliefs about severe mental illness; Optimism (6 items), which describes positive attitudes about severe mental illness and its recovery; Coping (7 items), which addresses productive and unproductive coping strategies for tackling stigma (e.g. seeking help and concealing the illness respectively) and Understanding (6 items), which taps respondents' perception about how the person with severe mental illness feels or thinks. Some items were reversed scored in order to avoid the emergence of response bias. Higher composite scores indicate more favourable attitudes to severe mental illness.

The scale has demonstrated very good psychometric properties on a general population sample (Madianos et al. 2012); while it has also been used to explore mental health professionals' attitudes to severe mental illness in Cyprus (Panayiotopoulos et al. 2012). In the present study, internal consistency of the scale was deemed good (Cronbach $\alpha = 0.86$ for Stereotypes, 0.78 for Optimism, 0.65 for Coping, and 0.71 for Understanding). Regarding the factor Coping, one item ("People with severe mental illness should not hide their problem from family and friends") had to be dropped due to compromising the internal consistency of the factor (Cronbach $\alpha = 0.6$ with the item, as compared to Cronbach $\alpha = 0{,}65$ without the item). In a similar vein, for computing the total scale score, the factor Understanding was excluded: Cronbach $\alpha = 0.6$ with the factor and Cronbach $\alpha = 0.7$ without the factor.

Social Distance Scale (Economou et al. 2010)

The scale assesses the desired social distance from people with severe mental illness in various social encounters requiring different levels of intimacy. It entails 14 items rated on a 5-point Likert scale ranging from 1: definitely yes to 5: definitely no. Some items are reverse scored in order to avoid acquiescence and response bias. Higher scale scores indicate greater desire to maintain distance from people with severe mental illness and thus greater stigma. The scale has displayed very good psychometric properties on lay people and medical students (Economou et al. 2017, 2010, 2012). In the present study, the internal consistency of the scale was deemed very good (Cronbach $\alpha = 0.9$).

Interpersonal Reactivity Index (Davis 1980)

The scale is most widely used instrument for measuring empathic tendencies (Pulos et al. 2004). Its popularity may be ascribed to its multidimensional conceptualization of empathy, its comprehensiveness and brevity (De Corte et al. 2007). It encompasses 28 items rated on a 5-point Likert scale ranging from 0: does not describe me well to 4: describes me very well. The scale consists of 4 subscales: Perspective Talking (7 items), which taps one's tendency to spontaneously adopt the psychological perspective of another person; Fantasy (7 items), which assesses one's ability to place oneself into the shoes of fictional characters in literature and movies; Empathic-concern (7 items), which addresses "other-oriented" feelings of sympathy and concern over misfortunes; and Personal Distress (7 items), which assesses "self-oriented" feelings of anxiety and unease during intense interpersonal encounters. The tool has demonstrated good psychometric properties worldwide (Davis 1980; De Corte et al. 2007; Gilet et al. 2013; Pulos et al. 2004). The scale has been validated in Greece (Gilet et al. 2013). In the present sample, the internal consistency of the subscales was deemed from adequate to good, depending

on the factor (Cronbach α = 0.56 for Perspective Talking, 0.77 for Fantasy, 0.62 for Empathic Concern and 0.76 for Personal Distress). No total score was computed, congruent with other studies [e.g. (De Corte et al. 2007; Santamaría-García et al. 2017)].

Furthermore, information on respondents' socio-demographic and professional characteristics was gleaned: gender, age, family status, education, income (low-medium to low-medium- medium to high- high- very high), professional group (psychiatrist-psychologist-social worker-nurse), tenure (in years), duration of work experience (in years) and personal experience with mental illness (himself/herself-close relative- close friend- acquaintance- colleague).

Data were collected in the form of a self-reported questionnaire.

Procedure

The research protocol received approval from the Scientific Board and the Ethics Committee of both hospitals. Two postgraduate students approached the professionals working on both hospitals and informed them about the study. In case of an affirmative answer, participants were administered the questionnaire; while the students remained nearby for addressing potential queries. The students called respondents' attention to the importance of answering spontaneously all questions. The average time for completing the questionnaire was 15 min.

Statistical Analysis

In terms of descriptive statistics, frequencies were computed for nominal and ordinal variables and mean and standard deviations for numeric variables. In order to identify the socio-demographic and professional predictors of attitudes to severe mental illness and social distance, univariate analysis were initially performed: t-test, one-way ANOVA and Pearson correlation. Variables that were found to exert a statistically significant effect on the dependent variables (ASMI score and social distance score) were entered simultaneously (ENTER method) in a multiple linear regression model. For categorical variables with more than two levels, dummy variables were computed (number of dummy variables = number of levels—1). In a similar vein, for exploring the association of empathy with stigma measures, at first empathy domains were entered simultaneously into the model (Model 1) and then the statistically significant socio-demographic and professional characteristics, derived from the previous multiple linear regression analyses, were entered as potential confounders (Model 2).

The assumptions of multiple linear regression analysis were not violated and all analyses were performed by using SPSS statistical software (version 19.0).

Results

Sample Characteristics

A total of 174 professionals participated in the study. The majority were women 62.1%) and married individuals (63.8%); while the mean age of the sample was found to be 44.43 years old. Most respondents had either completed undergraduate studies in a university (29.9%) or a technical institution (33.9%). Regarding personal income levels, the majority of participants classified their income as either low to medium (35.1%) or medium (34.5%).

Concerning professional characteristics, most of respondents were psychiatric nurses (36.8%); while the mean tenure was found to be 13.11 years and the mean duration of professional experience 16.36 years.

Roughly one out of two respondents reported having an acquaintance with mental illness (51.1%), a relative with mental illness (49.4%) and a close friend (44.8%).

Sample characteristics are presented in detail in Table 1.

Descriptive Statistics for Professionals' Attitudes and Desired Social Distance from People with Severe Mental Illness

Mental health professionals hold predominantly positive attitudes towards people with severe mental illness. Nonetheless, with respect to certain beliefs the sample appeared divided. These beliefs are centred on the prospects of recovery as well as to the perception of people with severe mental illness as being like/unlike other people. Specifically, 42.5% of respondents disagreed (disagree/rather disagree) with the item "people with severe mental illness can recover nowadays" and 48.3% agreed (agree/rather agree) with the view that "If a person has experienced severe mental illness, he/she will suffer from it for the rest of his/her life". Additionally, 29.9% of the sample espoused the belief that once ill, people with severe mental illness stop being like other people; while one out of four participations agreed with the item "no matter how hard they try, people with severe mental illness will never be like other people" (27%).

Apart from these two domains, respondents held positive attitudes (Table 2).

Concerning the social distance measure, respondents held positive attitudes overall. Nonetheless, social encounters necessitating greater intimacy divided the sample. In particular, 41.9% of respondents reported feeling upset or disturbed about sharing a room with a person with severe mental illness. Furthermore, 36.7% of the sample was unsure or negative about accepting a person with severe

Table 1 Socio-demographic and professional characteristics of the sample

Variable	N (%)	Mean (s.d.)
Gender		
Men	66 (37.9%)	
Women	108 (62.1%)	
Age		44.43 (8.52)
Family status		
Single	48 (27.6%)	
Married/cohabiting	111 (63.8%)	
Divorced/widowed	15 (8.7%)	
Educational attainment		
Diploma certificate	27 (15.5%)	
Degree from a technological educational institution	59 (33.9%)	
University	52 (29.9%)	
Postgraduate studies	36 (20.7%)	
Personal income		
Low	51 (29.3%)	
Low to medium	61 (35.1%)	
Medium	60 (34.5%)	
Medium to high	2 (1.1%)	
Professional group		
Psychiatrist	41 (23.6%)	
Psychologist	38 (21.8%)	
Social worker	31 (17.8%)	
Nurse	64 (36.8%)	
Tenure (in years)		13.11 (6.6)
Duration of professional experience (in years)		16.36 (7.63)
Personal experience with mental illness		
Oneself	3 (1.7%)	
Relative	86 (49.4%)	
Close friend	78 (44.8%)	
Acquaintance	89 (51.1%)	
Colleague	56 (32.2%)	

mental illness as a hairdresser, 40.1% about starting a friendship and 56.9% about renting their house. The most unfavourable attitudes were documented in their strong reluctance to marry a person with severe mental illness (definitely/probably no: 70.1%).

In other social contexts, the sample held positive attitudes (Table 3).

Socio-demographic and Professional Predictors of Stigma

Variables bearing a statistically significant association with the ASMI total score and the SD score during univariate analyses were entered as predictor variables. Hence, a multiple linear regression analysis with the ASMI composite score as the outcome variable and (i) professional group, (ii) having a close friend with mental illness (yes–no), (iii) having a relative with mental illness (yes–no) and (iv) having a colleague with mental illness (yes–no) as the predictor variables was performed. For the professional group, three dummy variables were computed: psychiatrist, psychologist and social worker. Thus, nurse was the reference category. The variables were entered simultaneously into the model (ENTER method) and all assumptions were not violated. Findings are presented in Table 4.

A significant regression equation was found: $F(6,167) = 13.88$, $P < 0.001$ with an R^2 of 0.41. The variables that were found to significantly predict professionals' attitudes to severe mental illness were being a psychologist, being a social worker, being a psychiatrist and having a colleague with severe mental illness. Psychologists, social workers and psychiatrists showed more positive attitudes towards people with severe mental illness as compared to nurses. In a similar vein, people having a colleague with mental illness scored higher in the total ASMI score that those who do not. Among all variables, being a psychologist

Table 2 Descriptive results for the Attitudes to Severe Mental Illness scale

Item	D N (%)	RD N (%)	RA N (%)	A N (%)
If a person has experienced severe mental illness, he/she will suffer from it for the rest of his/her life	52(29.9%)	38 (21.8%)	64 (36.8%)	20 (11.5%)
People with severe mental illness are failures	134 (77%)	31 (17.8%)	9 (5.2%)	–
No matter how hard they try, people with severe mental illness will never be like other people	74 (42.5%)	53 (30.5%)	33 (19%)	14 (8%)
People with severe mental illness have to take medication for as long as they live	48 (27.8%)	25 (14.4%)	53 (30.5%)	48 (27.6%)
Severe mental illness makes the person who suffer from it look ill from a distance	67 (38.5%)	47 (27%)	52 (29.9%)	8 (4.6%)
Once ill, people with severe mental illness stop being like other people	59 (33.9%)	63 (36.2%)	45 (25.9%)	7 (4%)
It is easy for other people to recognize that someone has severe mental illness	58 (33.3%)	84 (48.3%)	31 (17.8%)	1 (0.5%)
People with severe mental illness cannot acquire new skills	115(66.1%)	40 (23%)	15 (8.6%)	4 (2.3%)
People with severe mental illness are dangerous	99 (56.9%)	44 (25.3%)	25 (14.4%)	6 (3.4%)
Severe mental illness is responsible for all the misfortunes of a person	94 (54%)	51 (29.3%)	16 (9.2%)	13 (7.5%)
All psychiatric medication cause addiction	108 (62.1%)	29 (16.7%)	31 (17.8%)	6(3.4%)
A person with severe mental illness is able to work	4 (2.3%)	8 (4.6%)	88 (50.6%)	74 (42.5%)
A person with severe mental illness can receive training for an occupation	–	11 (6.3%)	70 (40.2%)	93 (53.4%)
People with severe mental illness do not differ from other people	21 (12.1%)	41 (23.6%)	56 (32.2%)	56 (32.2%)
People with severe mental illness can cope with life difficulties	11 (6.3%)	14 (8%)	73 (42%)	76 (43.7%)
Taking psychiatric medication does not render a person with severe mental illness different from other people.	8 (4.6%)	45 (25.9%)	63 (36.2%)	58 (33.3%)
People with severe mental illness can recover nowadays	23 (13.2%)	51 (29.3%)	58 (33.3%)	42 (24.1%)
People with severe mental illness should not to give up	–	1 (0.6%)	21 (12.1%)	152 (87.4%)
People with severe mental illness should seek help from a mental health professional	–	–	10 (5.7%)	164 (94.3%)
It is better for a person with severe mental illness to hang out only with people who also have a mental disorder	142 (81.6%)	21 (12.1%)	10 (5.7%)	1 (0.6%)
It is better for people with severe mental illness to conceal their illness, so as to avoid life difficulties	100 (57.5%)	37 (21.3%)	27 (15.5%)	10 (5.7%)
Friends should not avoid a person with severe mental illness when he/she falls ill.	1 (0.6%)	3 (1.7%)	23 (13.2%)	147 (84.5%)
It is better for a person with severe mental illness to avoid other people	144 (82.8%)	21 (12.1%)	8 (4.6%)	1 (0.6%)
People with severe mental illness should not hide their problem from family and friends	14 (8%)	8 (4.6%)	34 (19.5%)	118 (67.8%)
People with severe mental illness usually feel a burden to their families	8 (4.6%)	26 (14.9%)	89 (51.1%)	51 (29.3%)
People with severe mental illness usually feel inferior to other people	10 (5.7%)	19 (10.9%)	83 (47.7%)	59 (33.9%)
People treat differently a person with severe mental illness when he/she falls ill	3 (1.7%)	3 (1.7%)	44 (25.3%)	124 (71.3%)
People blame a person with severe mental illness for every misfortune occurs to his/her family	8 (4.6%)	26 (14.9%)	80 (46%)	60 (34.5%)
People with severe mental illness usually feel responsible for their illness.	15 (8.6%)	62 (35.6%)	51 (29.3%)	46 (26.4%)
It is difficult for other people to understand how a person with severe mental illness feels.	4 (2.3%)	8 (4.6%)	78 (44.8%)	84 (48.3%)

D disagree, *RD* rather disagree, *RA* rather agree, *A* agree

was the strongest predictor for favourable attitudes in the model.

In a similar vein, a multiple linear regression analysis with social distance score as the outcome variable and (i) gender, (ii) income, (iii) education, (iv) professional group and (v) having a friend with mental illness as the predictor variables was conducted. Dummy variables were created for nominal variables and predictors were entered simultaneously in the model. No violation of assumptions occurred.

A significant regression equation was found: $F(7,166) = 9.14$, $P < 0.001$ with an R^2 of 0.35. The variables that were found to bear a statistically significant association with social distance were being a psychologist, being a social worker and having a friend with severe mental illness. In particular, psychologists and social workers reported lower levels of desired social distance from people with severe mental illness as compared to nurses. Similarly, respondents who reported having a friend with mental illness displayed lower levels of social distance as compared to those who had no friend suffering from mental disorders. Being a psychologist was the strongest predictor of the model. Findings are presented in Table 4.

Table 3 Descriptive results for the Social Distance scale

Would you…	DY N (%)	PY N (%)	U N (%)	PN N (%)	DN (%)
Decide to live in house building, where someone with SMI also resides?	69 (39.7%)	69 (39.7%)	23 (13.2%)	12 (6.9%)	1 (0.6%)
Feel afraid to have a conversation with someone with SMI?	–	5 (2.9%)	4 (2.3%)	22 (12.6%)	143 (82.2%)
Be upset or disturbed about working on the same job with someone with SMI?	12 (6.9%)	22 (12.6%)	19 (10.9%)	66 (37.9%)	55 (31.6%)
Feel upset or disturbed about rooming with someone with SMI?	31 (17.8%)	42 (24.1%)	44 (25.3%)	40 (23%)	17 (9.8%)
Feel ashamed if people knew someone in your family has SMI?	–	12 (6.9%)	18 (10.3%)	69 (39.7%)	75 (43.1%)
Feel annoyed or disturbed about sitting next to someone with SMI in the bus?	–	14 (8%)	4 (2.3%)	36 (20.7%)	120 (69%)
Maintain a friendship with someone with SMI?	73 (42%)	59 (33.9%)	30 (17.2%)	11 (6.3%)	1 (0.6%)
Marry someone with SMI?	4 (2.3%)	10 (5.7%)	38 (21.8%)	34 (19.5%)	88 (50.6%)
Lend anything of yours to someone with SMI?	62 (35.6%)	69 (39.7%)	21 (12.1%)	21 (12.1%)	1 (0.6%)
Accept a person with SMI as your hairdresser?	41 (23.4%)	69 (39.7%)	30 (17.2%)	10 (5.7%)	24 (13.8%)
Rent your house to someone with SMI?	15 (8.6%)	60 (34.5%)	49 (28.1%)	29 (16.7%)	21 (12.1%)
Hire someone with SMI?	31 (17.8%)	82 (47.1%)	42 (24.1%)	16 (9.2%)	3 (1.7%)
Decide to live in neighborhood, where an institution for the treatment ofpeople with SMI is operating?	80 (46%)	77 (44.3%)	8 (4.6%)	8 (4.6%)	1 (0.6%)
Start a friendship with a person with SMI?	29 (16.7%)	75 (43.1%)	34 (19.5%)	26 (14.9%)	10 (5.7%)

SMI severe mental illness, *DY* definitely yes, *PY* Probably yes, *U* unsure, *PN* probably no, *DN* definitely no

Table 4 Socio-demographic and professional predictors of stigma measures

Model	Unstandardized coefficients B	Standardized coefficients β	95% CI for B	P value
ASMI				
Psychologist	13.64	0.56	9.66 to 17.63	0.000
Social worker	11.31	0.43	7.02 to 15.61	0.000
Psychiatrist	6.18	0.26	2.03 to 10.32	0.004
Having a relative with mental illness	1.23	0.06	− 1.89 to 4.34	0.437
Having a friend with mental illness	2.76	0.14	− 0.16 to 5.69	0.064
Having a colleague with mental illness	3.83	0.18	0.67 to 6.99	0.018
SD				
Psychologist	− 9.22	− 0.4	− 14.35 to − 4.1	0.001
Social worker	− 8.12	− 0.33	− 12.39 to − 3.85	0.000
Psychiatrist	− 1.44	− 0.07	− 6.53 to 3.66	0.577
Having a friend with mental illness	− 4.01	− 0.21	− 6.95 to − 1.06	0.008
Income	− 1.25	− 0.11	− 3.23 to 0.74	0.216
Education	− 0.46	− 0.05	− 2.65 to 1.74	0.681
Men	1.5	0.08	− 1.81 to 4.81	0.371

Empathy as a Predictor of Stigma Measures

Moreover, two multiple linear regression analyses were performed for each stigma measure (ASMI and SD). In Model 1, only the 4 domains of the Interpersonal Reactivity Index were included as predictor variables. In Model 2, the socio-demographic and professional predictors were also entered as confounders in the model.

As shown in Table 5, only Perspective Taking was found to be significantly associated with attitudes to severe mental illness: the higher the score on perspective taking the more favourable the attitudes. The statistically significant association was retained, albeit weakened, once the socio-demographic and professional correlates were entered into the model (B from 1.06 to 0.71). It is noteworthy that being a psychologist, a social worker, a psychiatrist and having a colleague with mental illness retained their statistically significant association with ASMI total score (data available upon request).

Table 5 Associations between stigma measures and domains of empathy

ASMI	Model 1			Model 2[a]		
	B	β	P value	B	β	P value
Perspective taking	1.06	0.43	0.000	0.71	0.28	0.001
Fantasy	−1.03	−0.06	0.557	−0.24	−0.13	0.103
Empathic concern	−0.2	−0.01	0.939	0.19	0.08	0.422
Personal distress	−0.21	−0.1	0.269	−0.12	−0.05	0.517
SD	Model 1			Model 2[b]		
	B	β	P value	B	β	P value
Perspective taking	−0.93	-0.4	0.000	−0.55	−0.24	0.015
Fantasy	0.37	0.21	0.023	0.38	0.22	0.010
Empathic concern	−0.15	−0.07	0.549	0.01	0.01	0.949
Personal distress	0.08	0.04	0.641	0.06	0.03	0.73

[a]Variables adjusted for: psychologist, social worker, psychiatrist and having a colleague with mental illness

[b]Variables adjusted for: psychologist, social worker and having a friend with mental illness

As far as social distance is concerned, Perspective Taking and Fantasy were the two domains that were found to be significantly associated with social distance. The former was found to be negatively related; whereas the latter positively. In line with this, higher scores of perspective taking are linked to lower levels of desired social distance from people with severe mental illness; whilst higher levels of fantasy are linked to greater desire for social distance. The statistically significant findings were maintained even after controlling for the influence of socio-demographic and professional characteristics. It merits noting that similar to findings pertaining to ASMI, the socio-demographic and professional predictors retained their statistically significant influence as well (Data available upon request).

Discussion

The main findings of the study can be summarized as: (1) mental health professionals have predominantly favourable attitudes towards people with severe mental illness; (2) unfavourable attitudes are mainly reflected by pessimism about the prospects of recovery, difficulty in viewing people with severe mental illness as no different from other people and desire to keep distance in social encounters of greater intimacy; (3) professional group and personal experience with mental illness emerged as the main socio-demographic and professional predictors of stigma endorsement; and (4) perspective taking was the main empathy domain associated with stigma measures.

Findings from the present study are congruent with the conclusions drawn by Wahl and Aroestry-Cohen (2010) who stressed a combination of favourable and unfavourable attitudes on the part of mental health workers towards people with mental illness, with a tendency towards the positive end. In the present study, professionals were found to endorse predominantly favourable attitudes and seem to have fared better than the general population (Economou et al. 2009; Madianos et al. 2012); although this is only speculative due to methodological differences among studies. For example, in a general population survey in Greece (Economou et al. 2009), it was found that 74.9% of the sample would feel disturbed sharing a room with a person with schizophrenia and 92.1% would not marry him/her. In the present study, the corresponding figures were 42.5% and 70.1% respectively. In a similar vein, 32.4% of lay people reported feeling afraid to have a conversation with a person with schizophrenia, as opposed to 3.1% of mental health workers in the present research. It merits noting that the general population survey addressed the stigma of schizophrenia, in contrast to the present study which focused on severe mental illness. Among mental health professionals in Greece, severe mental illness is employed as an umbrella term referring to patients with schizophrenia as well as affective psychoses. Therefore, it may well be the case that mental health staff holds more positive attitudes than the general population in Greece; however, one cannot rule the alternative explanation that these differences may be ascribed to methodological artifacts. Furthermore, mental health professionals' pessimism about patients' recovery prospects is worrisome and aligns with international findings (Caldwell and Jorm 2001; Magliano et al. 2004); however, it may also reflect hidden negative attitudes towards psychiatry and/or staff burnout. Additionally, it may be attributed to the clientele found in psychiatric hospitals of Attica, where the majority of hospitalisations are involuntary [e.g. 57.4% in a study (Stylianidis et al. 2017)], chronic and usually revolving-door patients. In this way, workers' perceptions about severe mental illness

may be biased towards the most disturbing and treatment-resistant cases.

Psychologists were found to hold the most favourable attitudes to people with severe mental illness and psychiatric nurses the least. This is consistent with other studies in the field corroborating differences among professional groups with regard to their stigma endorsement (Caldwell and Jorm 2001; Nordt et al. 2006; Peris et al. 2008). Consonant with the view by Wahl and Aroestry-Cohen (2010), differences among professional groups may reflect differences in training, experiences and ideology about treatment. Furthermore, psychiatric nurses are the ones that interact most frequently with patients in the psychiatric hospitals, especially during the acute crisis. In this reasoning, frequent contact may result in worse attitudes, especially if this entails daily interaction with chronic, severely disturbed patients during the acute phase of their disorder. This raises a question about the elements of contact that may reduce prejudice (Pettigrew and Tropp 2008; Ramiah and Hewstone 2013).

Approaching the same issue, i.e. the contact-prejudice association, from another angle is through exploring the role of personal experience with mental illness in stigma endorsement. Findings from the present study favour the graded conceptualization of personal experience/familiarity (Corrigan and Nieweglowski 2019). Different levels of personal experience were found to influence different aspects of stigma among mental health professionals. Having a colleague with mental illness (i.e. an intermediate level of familiarity) could predict positive attitudes towards severe mental illness; but for social distance, a higher degree of familiarity was required, i.e. having a friend with mental illness. Social distance constitutes a proxy of behaviour and it may usually reveal negative attitudes, even when other instruments fail to do so (Wahl and Aroesty-Cohen 2010). In this reasoning, for having positive attitudes in social distance scale, a stronger and deeper relationship with a person with mental illness may be required.

Taken together, these findings bring to the fore the conditions under which contact with a member of an outgoup is effective in reducing prejudice. It has long been posited that a successful contact situation should allow participants to interact with equal status, foster cooperation and advance shared goals (Allport 1954). Furthermore, more recent evidence suggests that successful contact situations should enable the development of friendship through repeated and meaningful contact (Davies et al. 2011), a view similar to our finding pertaining to social distance and high familiarity. Nonetheless, these social conditions are more general and thus are not tailored on health care contexts.

A recent review has critically summarized the pivotal ingredients for effective anti-stigma interventions in health care contexts (Knaak et al. 2017). Regarding contact elements, incorporating first-voice testimonies of people with mental illness, who have been trained to speak about their experiences of illness, recovery and the healthcare system is deemed imperative (Knaak et al. 2014; Maranzan 2016). This is in sharp contrast to the provider-patient interactions, as in this context people with mental illness are seen as the experts about their illness and thus as educators [52]. Such an approach has been shown to challenge stereotypes, decrease anxiety, advance understanding of recovery and increase empathy (Pettigrew and Tropp 2008; Maranzan 2016).

Indeed, in the present study empathy was found to be linked with more favourable attitudes towards people with mental illness, similarly to evidence in Italian medical students (Pascucci et al. 2017) as well as psychiatric nurses (Hsiao et al. 2015). Nonetheless, findings from the present study indicated that not all aspects of empathy foster favourable attitudes to people with mental illness among mental health workers. Contrary to evidence on medical students (Cutler et al. 2009), the stress inherent in empathizing with severely disturbed patients, as measured by the personal distress domain of IRI, was not found to predict professionals' attitudes or social distance. It is routine clinical practice for mental health workers at psychiatric hospitals to deal with emergency situations and therefore it is unlikely that they feel overwhelmed under these circumstances.

Concomitantly, the only domain that was found to be associated with both stigma measures was perspective taking. This requires a temporary interruption of one's point of view so as to switch to another person's perspective. Our findings are in contrast with the view by Pettigrew and Tropp (2008) who suggested that affective rather than cognitive factors are stronger mediators of the contact-prejudice association (Pettigrew and Tropp 2008). This perhaps may be attributed to the difficulties in empathizing emotionally with people with severe mental illness (due to fear of madness) as opposed to racial outgroup members. Nonetheless, our results are congruent with growing evidence from the social psychology realm, where perspective taking constitutes an effective tool for fostering liking as well as for discouraging discriminatory helping behaviours towards members of the outgroup, with this effect applying only to the outgroup of interest and not to other outgroups (Shih et al. 2009). At the same time, it has been shown that empathy may improve intergroup attitudes; without necessarily a change in stereotype content (Vescio et al. 2003). Therefore, an antistigma intervention may focus on enhancing professionals' perspective taking or/and remove its barriers. Interestingly, the Fantasy domain of the IRI was found to bear a positive relation with social distance. Participants who scored higher in this domain expressed greater desire to maintain distance from people with severe mental illness. The particular domain taps the tendency to identify strongly with fictitious characters, especially in movies. Although there is some

controversy over the characteristics of this domain [e.g. (De Corte et al. 2007)] rendering hard to grasp its underpinnings, this result may be explained by exposure to stigmatizing media portrayals of severe mental illness. Professionals with stronger tendencies to identify with fictitious characters may spend more time watching films and TV series. As a result of this, they may be implicitly influenced by the predominantly negative representations (Owen 2012; Stuart 2006).

The present study was not without its shortfalls. The sample was limited to professionals of psychiatric hospitals and therefore findings cannot be extrapolated to mental health personnel working at the psychiatric departments of general hospitals or/and community services. Moreover, the observed associations may be confounded by staff burnout, which has been both linked to lower levels of empathy [for a review on the topic, see (Wilkinson et al. 2017)] and higher levels of stigmatization (Bayar et al. 2009; Lauber et al. 2006; Vescio et al. 2003). Regarding the research instrument, the Understanding factor of ASMI was excluded from the composite scale score due to its moderate correlation with the other factors of the scale. It merits noting that it is debatable whether the factor taps awareness of stigmatized attitudes or it is an indicator of mental health professionals' own attitudes, as in the Perceived Stigma Scale by Link et al. (1991) and the Perceived Stigma subscale of the Depression Stigma Scale (Griffiths et al. 2004). Moreover, the social distance scale constitutes a proxy of actual behavior and the most popular measure of mental illness stigma (Link et al. 2004); however, it does not address actual behavior pertinent to health professionals' roles. The particular instrument was opted in light of the dearth of scales tapping attitudes to mental illness pertaining specifically to the role of health care providers (Kassam et al. 2012). A future study should include such a measure, for example such as the Opening Minds Scale for Health Care Providers (Kassam et al. 2012). after providing evidence for its psychometric properties.

Taken together, evidence from the present study indicates that anti-stigma interventions targeting mental health professionals should aim to enhance participants' perspective taking. Psychiatric nurses and psychiatrists should be targeted first. Concomitantly, future research should cast light on which aspects of the contact strategy yields the best outcome without overlooking that familiarity with mental illness and the characteristics of the interaction with a person with severe mental illness are important determinants of stigma. In this reasoning, apart from empathy, reduction in anxiety as a mediator of contact-prejudice association should be taken into consideration. The intervention should prioritize involving trained people with severe mental illness who would share their experiences of illness, recovery and the healthcare system. Finally, mental health professionals should keep on check their own beliefs, attitudes and behaviours to people with severe mental illness at all times: during clinical work, teaching, research and raising public awareness activities.

Compliance with Ethical Standards

Conflict of interest All authors declare that there is no conflict of interest. All authors certify responsibility.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Research Involving Human and Animal Rights This article does not contain any studies with animals performed by any of the authors.

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