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Has there been any change?

Abstract

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Keywords: Mental illness; Stigmatization; Social distance; Trend analysis; Public attitudes; Anti-stigma programs; Mental health promotion

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Abstract

Despite the improving mental health literacy of the public over recent years, people's attitudes towards people with the diagnosis of mental illness do not appeared to have changed. Long-term studies are scarce and mainly limited to Northwestern Europe. Given that no study has ever been carried out in Hungary, the present study examined attitudinal trends towards mentally ill people in the country, and evaluated its determinants using one item of the Social Distance Scale to assess social rejection towards others. National representative surveys of Hungarian adults were conducted in 2001, 2003, 2007 and 2015 (n=7605). By means of interview and a self-administered questionnaire, socio-demographic information, preferences for social distance, and familiarity with mental illnesses were assessed. Trend analysis demonstrated that no meaningful change had occurred in the desire for social distance over a period of 15 years. Being a woman, having low education level, and lower familiarity with mental illnesses were all related to higher preferences for social distance. However, the explanatory power of these factors was very small (4.2%). As found in other countries, attitudes towards mentally ill people have not changed in Hungary. More effort is needed to understand better and overcome social rejection concerning mental illness.

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1. Introduction

Annually, up to one-third of Europeans suffer from at least one mental disorder meaning that approximately 164.8 million people in Europe are affected by mental illnesses (Wittchen et al., 2011). In addition to their symptoms, people diagnosed as being mental ill must cope with the stigma surrounding these disorders (Caldwell and Jorm, 2000; Gureje et al., 2005; Jorm et al., 1997; Link et al., 1999). They often perceived as strange, frightening, unpredictable, aggressive, lacking self-control, violent and dangerous (Crisp et al., 2000; Link et al., 1999; Phelan and Link, 1998). These beliefs, often conceptualized as 'public stigma', constitute one of two stigma dimensions and should be differentiated from 'internalized stigma', the internalization of stigmatizing beliefs by the stigmatized individual (Corrigan and Watson, 2002). In any of the dimensions, attitudes concerning stigma can have a severe impact on people' lives because they experience psychological distress, have difficulties with personal relationships, experience delays in seeking help, and have decreased opportunities in achieving educational and vocational goals (Corrigan, 2004; Link et al., 1997; Wells et al., 1994).

The most frequently used variable to assess stigma is social distance and can be used to assess the desire to avoid contact with mentally ill people (Jorm and Oh, 2009). Studies have consistently reported that despite the improving mental health literacy of the public (Angermeyer and Matschinger, 2005; Jorm et al., 2006), social distance preferences concerning mentally ill people have not changed over the last 20 years

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(Schomerus et al., 2012) and in some cases have even increased (Angermeyer et al., 2013). Long-term studies are important in this respect because the knowledge they contribute serves as a reliable starting point for intervention programs. However, the number of studies using trend analysis is scarce and mainly limited to wealthier countries because such studies are both costly and time intensive . Consequently, most studies to date have been carried out in North Western Europe (Evans-Lacko et al., 2013; Makowski et al., 2016; Mirnezami et al., 2015) whereas data from Central and Eastern European countries (Clarke et al., 2007) –especially from countries with new market economies–is lacking (Evans-Lacko et al., 2014b). This is of significant importance especially because greater stigma towards the mentally ill has been found in countries with less research on the topic (Lasalvia et al., 2013; Thornicroft et al., 2009). For instance, Winkler et al. (2015) reported significantly higher rates of stigma towards mentally ill people in the Czech Republic when compared to those in England. They concluded that their findings might indicate a larger societal problem related to mental health in the countries with new market economies in Central and Eastern Europe and that more research should be conducted in these regions (Winkler et al., 2015).

Given this background, the main aim of the present study was to examine– for the first time in Hungary – public attitudes towards mentally ill people. Hungary, a country with new market economy, was governed by communist propaganda, according to which there were officially no social problems in the society, and that people with mental illness were systematically excluded and housed in large asylums (Bajzáth et al., 2014; Höschl et al., 2012). Even though Hungary joined the EU in 2004, it is still greatly lagging behind other EU countries in terms of mental health (Bitter and Kurimay, 2012). Mental health care in Hungary is underfinanced when

compared to physical health (Dlouhy, 2014) and the dominant mental health approach is largely biological rather than social and psychological (Dlouhy, 2014). Furthermore, while the World Health Organisation (WHO) gathered its recommendations in 2005 for implementation of anti-stigma programs and mental health promotion in Europe, no progress was made in Hungary concerning these issues (Fernezelyi et al., 2009).

In 2007, Hungary's largest psychiatric treatment, teaching and research institute was closed. This happened as a consequence of the 2006 "Hospital Law" (Kurimay, 2010) which decided there was to be a reduction of 25% of acute psychiatric beds in the country. Since then, other psychiatric services (including outpatient services) have reduced. Well established care pathways have also been disrupted leaving many patients temporarily or on a long-term basis without or with reduced psychiatric care. Furthermore, the hospitalization rate of psychiatric patients has increased rather than decreased (Bitter and Kurimay, 2012). Despite finalising the document of the first National Programme for Mental Health in Hungary in 2009 (a program initiated to implement WHO recommendations) by an expert group, it has never become an official government program or received financial support (Bitter and Kurimay, 2012).

Community psychiatry, one of the fundamental elements of WHO initiatives, which aimed to move mental health resources from hospitals to the community and to integrate mental health services into primary care, is still in its infancy in Hungary. In fact, there is no actual plan about how this new paradigm will be introduced and realized (Fernezelyi et al., 2009). Despite the fact that Hungary acknowledges mental health issues and considers these as a priority, the lack of consensus among Hungarian

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psychiatrists about the direction of mental health reforms is a serious obstacle for further development (Dlouhy, 2014).

This climate is well reflected in the problematic picture arising from the few studies carried out on the Hungarian population. For instance, when compared to other European countries, Hungary has the lowest level of schizophrenia recognition from a vignette describing schizophrenia symptoms (Olafsdottir and Pescosolido, 2011), and has the most negative attitudes towards mentally ill people and towards openness to seeking professional help, compared to Germany, Ireland and Portugal (Coppens et al., 2013).

Despite these concerns, to the best of the authors' knowledge, no in-depth study has ever examined stigmatic attitudes toward people living with a mental disorder in Hungary. Consequently, the present study investigated stigma towards the mentally ill by analysing the trends of preferences for social distance over a period of 15 years using nationally representative samples. Using these data, the study also evaluated the determinants of social distance in an effort to help to understand the factors underlying negative attitudes. Previous studies have found that older age, lower education level, and lower familiarity with mental illness are related to a higher preferences for social distance (Jorm and Oh, 2009). Findings regarding gender are less consistent as most of the community samples show no significant gender difference (Angermeyer et al., 2003; Whatley, 1959) although some studies have shown greater social distance among female participants (Gaebel et al., 2008; Kirmayer et al., 1997) and male subjects (Jorm and Griffiths, 2008; Jorm and Wright, 2008). It was assumed that with Hungary's joining the EU in 2004 and the stronger relationship with European values, that this might have a positive effect on attitudes concerning mentally ill people during the past decade. However, considering

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Hungary's underfinanced mental health system and the lack of national anti-stigma programs, only a moderate (positive) change was expected. Furthermore, it was expected that older age, lower education level, and lower familiarity with mental illnesses would be significant predictors of higher preferences for social distance. Due to conflicting evidence in the psychological literature regarding the impact of gender, no hypothesis on this variable was formulated.

2. Methods

2.1. Participants

The present study analysed data from large epidemiological surveys that were conducted in Hungary during the years of 2001, 2003, 2007 and 2015 (Elekes and Paksi, 2003; Paksi, 2001; Paksi et al., 2009, 2017). The sampling was random stratified according to settlement size, region and age, except in 2001, when in Budapest, countryside stratification was applied. Weights were used to compensate for over- or under- represented groups. The samples of all years, except 2003, comprised 18-64 years old Hungarian citizens, whereas in 2003 the age range for participation was 18-53 years. In order to examine the trends in social distance level during the different years, all samples were used and compared, using the common age range of 18-53 years (socio-demographic characteristics of the samples can be found in Table 1). A total of 7605 individuals were included in the analysis. More specifically 1869 (in 2001), 2476 (in 2003), 2118 (in 2007), and 1142 (in 2015). In order to examine the prediction model of social distance, data from the updated and most recent sample of 2015 were used, including the whole sample (age range 18-64 years). A total of 1490 participants were included in the latter analysis.

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2.2. Procedure

Household surveys were conducted using similar protocols over the four time points. The participants were contacted and interviewed by trained interviewers. After being presented with information about the study and giving informed consent verbally, participants completed the research questionnaires. The questionnaires were answered utilising a mixed technique. For the socio-demographic information and social distance scale, data were collected via interview. For sensitive questions, namely personal familiarity with mental illnesses, participants completed the questionnaire on their own. All questions were presented in Hungarian.

2.3. Materials

2.3.1. Socio-demographic questionnaire

Gender, age, and education level were assessed. The education level categories were merged into three categories (0=below high school, 1=high school with diploma, and 2=academic).

2.3.2. Social Distance

Social distance was assessed using a single item from the Social Distance Scale (SDS;(Bogardus, 1925). The SDS was originally developed to assess participants' willingness to have social contact with members of diverse groups in different situations in a progressive order of intimacy (ranging from marriage to entrance to the country). In the present study, the willingness to interact with mentally ill people was assessed with one question from the SDS asking about the acceptance of such individuals as neighbours. This was done to reduce the length of the questionnaire and to avoid excessive demands for the participants who were presented with large

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number of questionnaires. Using a five-point scale ranging from 1-5 and a "don't know" category (1 = would object, 2 = would rather not, 3 = would depend, 4 = would not disapprove, 5 = would welcome), participants indicated their acceptance preferences.

In the present study, social distance level was found to have a skewed distribution, therefore responses were grouped together by means, so "would object" and "would rather not" responses were merged constituting a "would object" response (an indication of attitudes of social rejection towards mentally ill people), and "would depend", "would not disapprove" and "would welcome" were merged constituting a "would accept" response (an indication of attitudes of social acceptance towards mentally ill people).

As mentally ill individuals were not the main interest of the epidemiological study, participants were also asked to report on their willingness to interact with other minority groups in the society such as those in prison, Roma people (Gypsies), people with alcohol use disorders, people with large families, people with AIDS, drug users, homosexuals, migrants, and Jews. This study was originally interested in public attitudes specifically towards substance use disorders. Consequently, findings showing that many members of the lay pubic cannot correctly recognize mental disorders as such (Angermeyer and Dietrich, 2006), and that substance use disorders are less commonly regarded as a mental illness (Schomerus et al., 2011), were taken into consideration. For this reason, alcohol and drug users were placed as separated categories. Social distance towards all minority groups was also used and compared in order to put into context the social distance level towards mentally ill people.

2.3.3. Familiarity with mental illness

In order to investigate the familiarity of the participants with mental illnesses, a self-administered question was included: "Is there someone in your family who has/had been treated due to mental illness?" Participants had to choose their answer from the following options: 0-no one, 1-mother, 2-father, 3-mother+father, 4-other, 5-mother+other, 6-father+other, 7-mother+father+other, and 9-don't know. These options were then merged into: yes-1, no-2, 8-invalid, and 9-don't know.

2.4. Statistical analyses

To test the effect of time on the two combined social distance response categories (indicating rejection or accepting attitudes towards mentally ill people), Chi-squared tests were used. To examine the prediction model of social distance, data from the recent sample of 2015 were used and analysed. Logistic regression was performed to identify the predictors of social distance including socio-demographic variables (age, gender and education) and familiarity with mental illnesses. SPSS 22 version was used for the analyses.

3. Results

3.1. Descriptive statistics

The percentages, means, and standard deviations (SDs) of study variables for the different samples over the four different time points (which were used for the trend analysis) can be found in Table 1. The samples across the different years are similar in terms of age and gender, while in terms of education, there was a slight tendency towards a higher level of education. It also appears that there was a tendency to report less on personal familiarity with mental illnesses.

Table1. Descriptive statistics of data used for trend analysis and years comparison

3.2. Changes in the desire for social distance

Overall, Chi-square tests indicated a significant (positive) trend in public preferences for social distance towards more accepting attitudes during the years of 2001-2015 (Table 1). However, closer examination reveals that the effect size was very small (0.05) and the 2015 rejection level was still high (57%) compared to over 60% in both 2001 and 2003. In fact, when comparing the public rejection levels towards mentally ill people to other minority groups in the Hungarian society (see Figure 1) it is evident that mentally ill people are among the three most rejected groups (with only alcohol and drug users being more rejected).

Figure 1. Social distance towards mentally ill people versus other minorities*

*%=more likely to **object** as a neighbour

3.3. Determinants of social distance

A logistic regression analysis was performed to predict the levels of social distance (Table 2). The results indicated that this prediction model was significant and explained 4.2% from the variance of social distance. Lower familiarity with mental illnesses, gender, and education below high school level were significant predictors,

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while familiarity with mental illness was found to be the strongest predictor in the model. Education level in general and age were not found to be significant predictors of social distance.

Table 2. Prediction model for social distance

***$p<0.001$; **$p<0.01$; *$p<0.05$. Cox & Snell R^2=0.031; Nagelkerke R^2=0.042.

4. Discussion

The present study indicated that attitudes of social rejection towards mentally ill people in Hungary are relatively high, and there were no meaningful changes observed in public attitudes over a 15-year period. These results are consistent with other trend analysis studies from the few international studies which found no evidence of a substantial increase in the public's acceptance of people with mental illness over the last decade (Angermeyer et al., 2013; Mirnezami et al., 2015; Schomerus et al., 2012).

The results also indicated that over the 15-year period, mentally ill people are among the three most rejected group in the society with people with alcohol use disorders and drug users being the highest. Moreover, while it seems that there is a general trend of higher rejection over the years towards most of the minority groups in the society, these groups appear to arouse an independent pattern of stable and high rejection. These findings highlight the need to examine more in-depth the core beliefs of the Hungarian public towards mentally ill people, because it might imply that these groups share common beliefs, which have not been addressed at a national level to

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date. Some insights regarding this were found in a study examining public beliefs toward depression in four European countries (Coppens et al., 2013). Results demonstrated that in Hungary more than any other country, the most common beliefs were that "people with depression are weak and dangerous" and that "depressive people could snap out of their situation if they really wanted it" (Coppens et al., 2013). The existence of these beliefs may reflect the tendency to see individuals with mental disorders unrelated to substance use, as dangerous and ones who should be blamed for their condition, similar to that regarding drug users and people with alcohol use disorders (Schomerus et al., 2011). While this rejection ranking of people with alcohol use disorders, drug users, and people with mental disorders unrelated to substance use has been found in other studies (Corrigan et al., 2010; Schomerus et al., 2011), such findings also stress the need to conduct more thorough examinations of the prevalent beliefs in all countries. The findings also suggest that an effective anti-stigma intervention should be tailored more specifically on a country-by-country basis because differences may appear even within a Western context and in countries who at least (in theory) are thought to share similar notions about mental illness (Kleinman, 1977).

Examination of the different predictors of social distance in the present study also support this. While there is a relative consistency in previous research regarding the impact of age on social distance, where rejection of others is associated with being older (Jorm and Oh, 2009), in Hungary it appears that age does not play an important role in attitudes of social rejection. In general, education was not a significant predictor – as found in other studies (Jorm and Oh, 2009) – but in Hungary it appears that the most important group to target is individuals without high school education. Moreover, it appears that women are the ones who report the greatest rejection from

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mentally ill people, and not men as found in several population studies conducted in Germany, Czech Republic, England, and the U.S (Angermeyer and Matschinger, 1997; Corrigan and Watson, 2007; Evans-Lacko et al., 2014a; Winkler et al., 2015).

In line with the study hypotheses and the international literature (Jorm and Oh, 2009), familiarity with mental illnesses was found to be a significant predictor of lower social rejection. Furthermore, it appeared that familiarity was the most important predictor for attitudes of social rejection and indeed, it is also stands at the heart of many of the existing anti-stigma programs (Corrigan et al., 2012; Griffiths et al., 2014). These programs reduce stigma by creating interpersonal contact with people with mental illness (Corrigan et al., 2012) and has been found effective in reducing attitudes of social rejection (Griffiths et al., 2014). Protest (against discrimination, for example in the mass media) and education programs with the intention of increasing knowledge concerning mental illnesses, are the other two prevalent elements that have been the focus of intervention programs until now (Corrigan and Penn, 1999). While mass media intervention has been found to have a small to moderate effect on stigma (Clement et al., 2013), education programs have been found to be successful (Corrigan et al., 2012). However, the most successful programs appear to be the ones that combine educational and social contact elements (Evans-Lacko et al., 2013). Nevertheless, it is important to keep in mind that – overall and in general – the effect of existing programs appears to be small. Thus, further research is needed in order to gain more knowledge about the determinants of stigma and attitudes of social rejection and how they can be targeted so that more effective interventions can be developed (Griffiths et al., 2014). This need also arises from findings in the present study, because the explanatory power of the different predictors was very small. Additionally, from the literature it is evident that for interventions to be effective they

should be targeted towards specific populations, be delivered locally, and involve contact with people who have successfully managed mental illness (Corrigan, 2011). It is also important that such initiatives are long-term and ongoing, perhaps integrated into routine care (Grausgruber et al., 2009).

The results of the present study mostly emphasize the problematic reality of mentally ill people in Hungary. In the presence of strong public rejection for more than a decade, no national plan to tackle mental illness stigma has been introduced and research in that topic is considerably lacking. The social rejection ranking of mentally ill people, people with alcohol use disorders and drug users found in the present study, highlights that the Hungarian population still do not perceive substance-related disorders as "mental illness' and mental health literacy programs are especially required. Given that Hungary has one of the highest rates in the world of alcohol-related mortality and morbidity (Kurimay, 2010), better education is especially important in Hungary, and can improve public attitudes and care of people with substance use disorders. Furthermore, allocating resources to mental health research in Hungary would provide important insights regarding the high rates of social rejection. Xenophobia in Hungary was always highly prevalent and according to new reports, it has increased during recent years (Simonovits et al., 2016). The most socially rejected groups are mostly disadvantaged groups such as people with disabilities, low educational background, those living at the countryside, pensioners, living in Eastern counties, or unemployed (Fábián and Sík, 1996). Mentally ill people are also one group that were highly stigmatized during the history of Hungary. They were socially excluded and discriminated in the labor market, resulting in unemployment and homelessness which only increase the social rejection (Bányai, 2015). Whether this social rejection is a unique and specific problem, a reflection of

poor mental health system and policies, and/or a part of a wider xenophobia phenomenon that arises from this research, is something that should be investigated further in order to address this issue better.

Given that the study's main aim was to specifically examine stigma in a country with new market economy, the investigation appears to have been justified by the results found. During the era of communism, the government in Hungary officially considered all social problems to be either the consequences of capitalism or a result of the activities of 'anti-government elements'. Mental illnesses were perceived as individual problems, unrelated to the society, and people with mental illness were marginalized, socially excluded and hospitalized in large psychiatric asylums (Bajzáth et al., 2014; Höschl et al., 2012). It is possible that the communist heritage is still present in the public minds, and can supply explanation, even if partial, to the high rate of social rejection in Hungary. As such, although it cannot be confirmed from the present study's findings alone, the high prevalence of social rejection in Hungary may be indicative of a bigger problem in countries with new market economies compared to other parts of Europe. This assertion is supported by findings from another country with new market economy, the Czech Republic (Winkler et al., 2015), where a high level of stigmatization towards the mentally ill was found, a level which appears similar to the one in Hungary and which was significantly higher than compared to England. As such, it is possible that this problem represents a bigger problem in countries with new market economies in Europe. Because there has been little published research from this region of Europe (Evans-Lacko et al., 2014b), the present study raises and stresses the need to examine public attitudes in other countries with new market economies in Europe.

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This present study is not without limitations. First, as the study is a part of a larger epidemiological research project utilising self-report data where the focus was not mental illness stigma, and the examination of attitudes toward stigma was only partial. Only one item from the Social Distance Scale (SDS) was used and an expanded examination of stigmatic beliefs and attitudes is needed, especially as social distance is just one component of stigma. Other components such as the stereotypes of dangerousness or unpredictability as well as the tendency to blame people with mental illness as responsible for their disorder are also important to assess. This is especially important considering that this is the first study to be conducted in Hungary on attitudes of stigma toward mentally ill people. The use of self-report methodologies (in this case interviews and self-completion questionnaires) also has well known biases (most notably memory recall and social desirability).

Second, as familiarity with mental illness was found to be an important factor, there might be a need to examine it in a more in-depth way so that it includes other familiarity levels rather than family members. Having a close friend with mental illness or having a mental illness diagnosis, can all have significant impact on preferences for social distance. Third, it is important to mention that the examination of the two main study variables (i.e., social distance and familiarity), was assessed using only one item, which should be considered when interpreting the findings. Forth, while this study examined attitudes towards mentally ill people in general, distinguishing between different mental illness diagnoses is also needed. This is important, especially as it was found that the level of attitudes towards stigma and social distance tend to vary across different diagnoses (Parle, 2012) and over the years. As decreases in preferences for social distance towards depression was found over the years (Reavley and Jorm, 2012; Silton et al., 2011), it is possible that

examining attitudes towards different diagnoses will highlight different trends. This may increase the application and generalization of the results to different mental illness diagnoses and increase the effectiveness of anti-stigma programs. Finally, it is important to note that the different samples during the years differed in level of education, as tendency towards greater education in more recent years was found. Thus, consideration should be made when interpreting the results.

4.1. Conclusions

Despite the aforementioned limitations, the present study has many strengths including a longitudinal time span of 15 years and robust nationally representative data. As the first ever study of this kind in Hungary, the findings provided insights into attitudes of the Hungarian population towards mentally ill people. By doing so, this study contributes insights into the public's attitudes toward stigma in general and strengthens international efforts in combating mental illness stigma. Most importantly, these efforts should facilitate and stimulate a more profound examination of the underlying factors of stigmatization, which is highly prevalent and disturbingly persistent in Hungary and other countries.

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Legend:
- Mentally ill people
- Prisoners
- Roma people
- People with alcohol use disorders
- People with large families
- People with AIDS
- Drug users
- Homosexuals
- Migrant
- Jews

Data labels shown on chart: 61.70%, 64.30%, 59.20%, 57%

X-axis: 2001, 2003, 2007, 2015

Y-axis: 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%
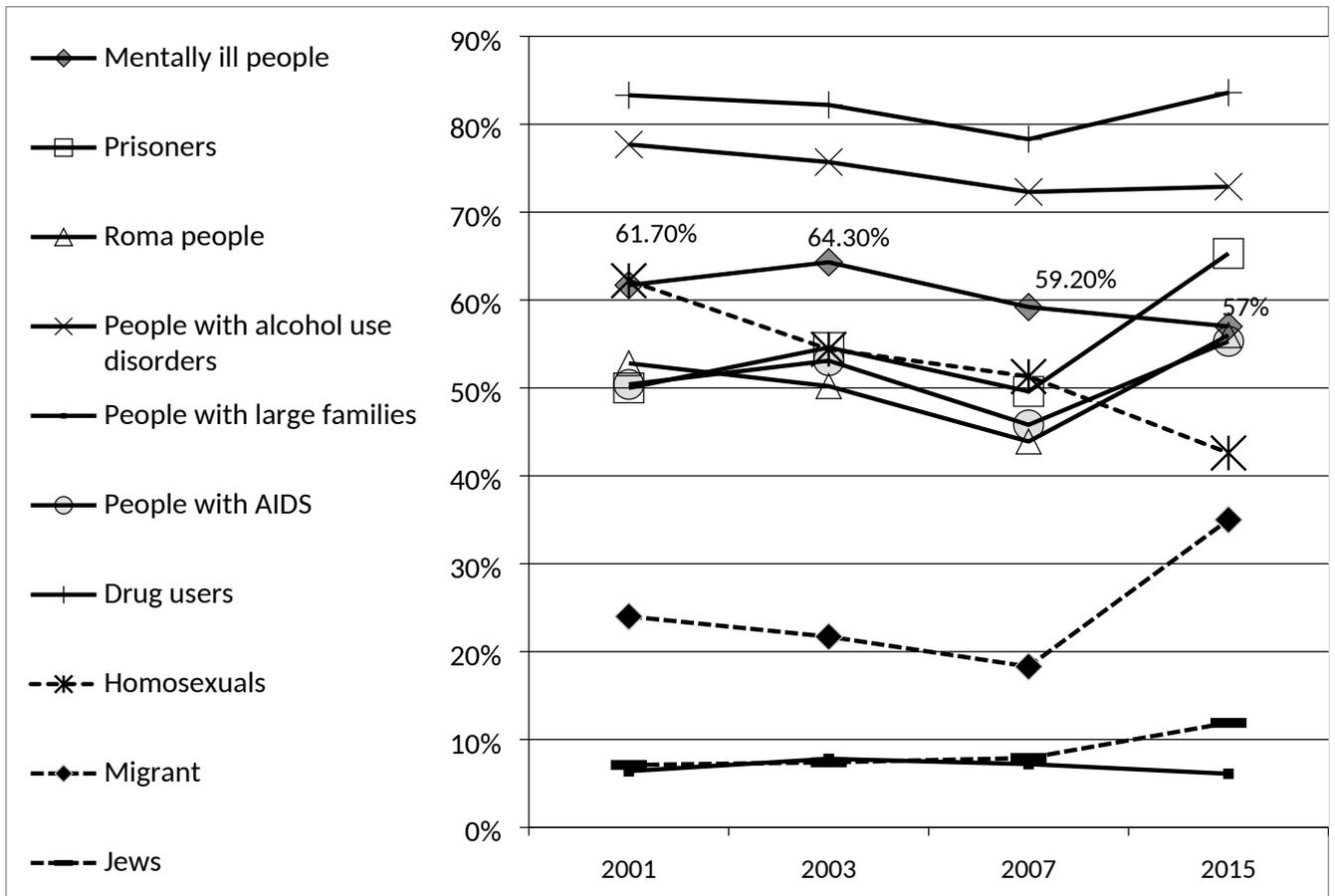
Table1. Descriptive statistics of data used for trend analysis and years comparison

				YEAR	Statistical comparison χ^2 or F (p value)	2001 and 2015 comparison (p value) (ES)		
	2001	**2003**	**2007**	**2015**				
N	1869	2476	2118	1142				
Gender								
Female % (n)	50.9 (951)	50.2 (1244)	49.7 (1053)	53.4 (610)	χ^2=4.48			
Age								
Mean (SD)	35.6 (10.6)	35.6 (10.6)	35.3 (10.3)	36.1 (10.0)	F=1.64			
Education level								
Below high school % (n)	51.0 (951)	49.1 (1215)	44.0 (930)	41.2 (470)				
High school with diploma % (n)	34.5 (644)	37.2 (921)	38.4 (812)	42.5 (484)	χ^2=46.39***			
Academic % (n)	14.5 (271)	13.7 (338)	17.6 (373)	16.3 (186)				
Familiarity with mental illness								
Having a family member who is/was treated due to mental illness % (n)	9.0 (156)	13.8 (314)	11.7 (217)	10.4 (103)	χ^2=25.58***			
Social distance[a]								
People with mental illness% (n)	61.7 (1139)	64.3 (1578)	59.2 (1245)	57.0 (634)		χ^2=6.49* ES=0.05		
Drug users % (n)	83.3 (1536)	82.2 (2019)	78.3 (1649)	83.6 (931)		χ^2=0.08 ES=0.01		

People with alcohol use disorders % (n)	77.7 (1442)	75.7 (1865)	72.3 (1527)	72.9 (815)		χ^2=8.61** ES=0.05
Homosexuals % (n)	62.2 (1140)	54.4 (1336)	51.3 (1077)	42.6 (472)		χ^2=107.40*** ES=0.19
Roma people % (n)	52.8 (980)	50.2 (1233)	43.9 (924)	56.0 (627)		χ^2=2.79 ES=0.03
People with AIDS % (n)	50.4 (918)	53.1 (1292)	45.8 (964)	55.3 (611)		χ^2=6.50* ES= 0.05
Prisoners % (n)	50.0 (917)	54.6 (1339)	49.6 (1043)	65.3 (731)		χ^2=65.95*** ES=0.15
Migrants % (n)	24.0 (445)	21.7 (533)	18.3 (385)	35.0 (388)		χ^2=41.86*** ES=0.12
Jews % (n)	7.1 (132)	7.4 (181)	7.9 (166)	11.9 (132)		χ^2= 19.40*** ES=0.08
People with large families % (n)	6.4 (119)	7.8 (192)	7.2 (151)	6.1 (69)		χ^2=0.10 ES=0.01

ª%=More likely to **object** as a neighbour; *ES*=effect size (Cramer's V); ***p<0.001; **p<0.01; *p<0.05.

Table 2. Prediction model for social distance

Predictor variables	Odds ratio [95% confidence interval]
Familiarity with mental illnesses	
Yes	3.02 [2.06-4.43]**
No	Reference group
Gender	
Men	1.30 [1.03-1.64]*
Women	Reference group
Age (years)	1.00 [0.99-1.01]
Education level	
Below high school	0.71 [0.50-0.99]*
High school with diploma	0.78 [0.55-1.09]
Academic	Reference group

***$p<0.001$; **$p<0.01$; *$p<0.05$. Cox & Snell R^2=0.031; Nagelkerke R^2=0.042.