

Stigma of substance use in healthcare: A research on contact hypothesis

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Introduction: Patients suffering from mental disorders and especially substance-use disorders (SUDs) are often stigmatized by both lay individuals and health professionals, which may lead to poorer treatment outcomes. The purpose of this study was to assess the level of stigma against alcohol and drug users among lay respondents and actors of healthcare. *Materials and methods:* An online questionnaire was filled out by a total of 148 participants from three subgroups: (a) 25 addictology professionals, (b) 55 emergency care professionals, and (c) 68 lay individuals outside healthcare. The questionnaire contained standardized scales measuring the severity of substance use, authoritarianism, and own items assessing demographics, attitude towards substance users, and substance-related knowledge. *Results:* A more accepting attitude towards drug users was explained by the respondents' own substance use ($\beta = 4.52, p < .01$) and knowledge in addictology ($\beta = 2.22, p = .05$). Repeated encounters with substance users only showed connection with destigmatization in case of positive experiences. Emergency care professionals were characterized by the most stigmatizing attitude towards substance users. *Discussion:* Our results partially support Allport's contact hypothesis. We emphasize the need of a continuous sensitizing program targeting emergency care professionals in order to change their attitude towards SUD patients.

Keywords: substance-use disorder, stigma, healthcare, contact hypothesis

INTRODUCTION

Substance-use disorder (SUD) – of either legal or illicit substances – not only affects individuals, political, and legal systems, but it has a great impact on the healthcare system as well [1]. On examining the current emergency care – in both intra- and prehospital settings – it is clear that the number of patients with any SUD is high among both adults and adolescents [2, 3]. This phenomenon allows for research on the topic of Allport's contact hypothesis (also cited as intergroup contact theory) in this special area [4].

SUD-related stigma may be characterized by the concern that substance users can carry infectious diseases (such as hepatitis C or HIV), their behaviour can be aggressive and unpredictable [5], as well as the fact that substance itself is often judged as a moral weakness instead of being perceived as a disorder [6]. Several health professionals view SUD as an incurable disorder [7], not worth the efforts to help. Lack of knowledge regarding mental illnesses and behavioural health was linked to greater reported fear and avoidance in case of nurse respondents [8], whereas emergency room staff – being more confident about their skills to effectively treat SUD-related health consequences – showed more positive views about the possibility of SUD recovery [9].

As a consequence of SUD-related stigma in healthcare, patients may face barriers to treatment [10], including the lack of insurance or a difficulty in obtaining it, as well as the

lack of access to treatment programs. As van Boekel et al. [11] highlighted, health professionals' negative attitudes towards SUD patients may diminish the clients' feelings of empowerment and therefore might have a negative impact on treatment outcomes. Furthermore, SUD patients who perceive these negative attitudes may suppress their problems in order to avoid structural stigma and do not seek treatment as a result [12, 13].

With regard to prejudice and stigma towards certain subpopulations, Fábíán and Sík [14] suggest that an ingroup–outgroup situation is essential for prejudiced thinking. Allport [4] hypothesized that recurrent contact between majority and minority group members can be the most effective way to reduce such prejudice.

Thus, in our research, we studied how different groups with various knowledge and experiences about substance users react to an outgroup consisting of people with SUD to explore whether they demonstrate any stigmas towards this specific group. Therefore, the aim of this study was to explore differences in negative attitudes towards SUD individuals by comparing healthcare professionals from different fields and lay respondents.

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METHODS

Sample and procedure

The sample consisted of 148 respondents from three assessment groups: (a) 25 healthcare professionals working in fields related to addictology and long-term care of SUD patients, (b) 55 healthcare professionals in the emergency department (both prehospital care and intrahospital emergency care), and (c) 68 people with a profession outside the fields of healthcare (lay individuals). Health professionals from the field of addictology and urgent or emergency care were recruited through the private mailing lists of the Hungarian Association on Addictions and the chief officers of the Western Transdanubian region's ambulance stations. Lay individuals were reached through social media. Data were collected between October and December 2016.

Measurements

The participants were asked to fill out an online questionnaire, which contained validated scales, such as the Hungarian versions of the Alcohol Use Disorders Identification Test (AUDIT) [15, 16], the Cannabis Abuse Screening Test [17, 18], the Fagerström Test for Nicotine Dependence [19], the Facism Scale (F-scale) for measuring authoritarianism [14, 20], as well as demographic questions (gender, age, level of education, and socioeconomic status), the history of familial substance use, and attitude scales designed for the purpose of the study. Socioeconomic status was reflected by perceived living conditions. In this case, respondents had to evaluate their living conditions on a 7-point Likert scale (ranging from 1 = the highest possible living conditions to 7 = the lowest living conditions). Attitudes towards substance users were assessed by applying a 4-point Likert scale (ranging from 1 = completely disagree to 4 = strongly agree), where respondents had to evaluate certain statements (altogether 22 items) about drug and alcohol users, respectively (e.g., "Drug users are dangerous individuals" or "I would reject a friend if he/she would turn out to be alcohol dependent"). Knowledge about substance use was measured by asking respondents about the risks and adverse consequences of various psychoactive substances and the epidemiological characteristics of the use of these substances.

Statistical analysis

Data were analysed using IBM SPSS 20. Potential differences between the assessed groups were analysed by using χ^2 test and analysis of variance (ANOVA) with Bonferroni post hoc analysis. To examine the association between various explanatory variables and the attitude scores towards alcohol and drug use and authoritarianism as dependent variables, linear regression analysis was applied. We did not aim to match the cases for age or gender during data collection. In order to control for gender or age group differences – as the three subgroups differed in gender distribution and age – these variables were entered as covariates in both regression models. Correlation between the attitudes towards substance use in general and the

experiences respondents had with substance users were measured using Spearman's rank correlation.

RESULTS

Sample characteristics

Regarding the full sample, mean age was 34.54 ($SD = 11.87$) years, 40.4% were males. The demographic analysis showed that emergency care professionals had the highest percentage of male participants (63.6%) compared to the field of addictology (32.0%) and lay individuals (21.4%) ($\chi^2 = 21.43$, $p < .001$). Considering the subgroup of emergency care professionals, all respondents were employed by the National Ambulance Service, including the fields of intensive and emergency care. The subgroup of addictology professionals consisted of psychiatrists, psychologists, and addiction consultants. Concerning average age, the addictology professionals scored the highest at 42.13 years ($SD = 12.46$), followed by the emergency care professionals at 33.59 years ($SD = 10.69$) and lay individuals at 32.02 years ($SD = 1.49$) [$F(2, 131) = 7.1$, $p < .01$]. With regard to the frequency of potential substance-use problems in their family, 72.0% of addictology professionals reported any substance-use problem among their family members, whereas this rate was 55.9% in case of lay individuals and 54.9% in case of emergency care professionals ($\chi^2 = 2.37$, $p > .05$). With regard to the level of education, approximately half of the full sample (46.3%) had an academic degree or was about to finish university studies (10.3%). Regarding perceived living conditions and socioeconomic status, 91.1% reported to be living among average or above average living conditions. About 94.9% was characterized by a heterosexual orientation, whereas only 7.4% reported to be a member of an ethnic minority.

Differences in attitudes towards alcohol and drug use

Negative attitude towards alcohol use [$F(2, 95) = 14.1$, $p < .001$] was characterized by a significantly lower score among professionals in the field of addictology compared to lay respondents ($p < .001$), whereas we did not find a significant difference between emergency professionals and any of the other two groups. Negative attitude towards drug use [$F(2, 96) = 14.21$, $p < .001$] presented a difference between all three groups: lay respondents scored significantly higher than addictology professionals ($p < .05$), whereas the highest score was found among emergency care professionals, compared to lay individuals ($p < .01$) and addictology professionals ($p < .001$).

Predictors of authoritarianism

As a next step, we explored the variance of authoritarianism by applying a linear regression analysis, in which gender, age, socioeconomic status, and level of education were entered as potential predicting variables of the variance of the F-scale total score (as an indicator of authoritarian personality). Table 1 presents the results of this model.

Table 1. Concurrent predictors of authoritarianism

	Authoritarianism (F-scale total score)
Gender	-0.27 (1.32)
Age	-0.10 (0.06)
Level of education	-1.27 (0.39)**
Socioeconomic status (perceived living conditions)	1.46 (0.64)*

Note. The table represents unstandardized regression coefficients with standard errors. Significant explanatory variables are boldfaced. * $p < .05$. ** $p < .01$.

Level of education was a significant negative predictor of higher authoritarianism, indicating that highly educated respondents showed the lowest authoritarianism. Furthermore, respondents who perceived their living conditions as the lowest possible showed higher F-scale scores. Age and gender did not show significant association with authoritarianism.

Instead of creating dummy variable from the main grouping variable (addictology, emergency, and lay groups) and enter it in the regression model, we compared F-scale scores between the three subgroups using a distinct ANOVA with Bonferroni post hoc test. Significantly lower scores were observed among addictology professionals than lay respondents [$F(2, 106) = 10.9, p < .001$], while there was no significant difference between the other two groups.

Predicting negative attitude towards alcohol and drug use

We analysed explanatory variables for a negative attitude towards alcohol and drug use. A negative attitude towards drug use ($R^2_{\text{adjusted}} = .6$) was significantly explained by the respondents' own substance use ($\beta = -4.52, p < .01$) and knowledge in addictology ($\beta = -2.22, p = .05$). On the other hand, the same analysis of negative attitudes towards alcohol use ($R^2_{\text{adjusted}} = .41$) pointed out that only knowledge in addictology can be viewed as a significant explanatory variable ($\beta = -2.64, p = .05$). Other variables were also entered in the model as potential covariates, such as F-scale scores, gender, education, AUDIT total score (alcohol-use disorder), and Fagerström total score (nicotine dependence), but none of these variables showed significant association with the dependent variables ($p > .05$).

Correlation between experiences and attitudes

Negative attitudes towards substance use showed significant correlation with the frequency of perceiving substance users as aggressive ($r = .258, p < .010$), dangerous ($r = .380, p < .001$), dishonest ($r = .257, p < .05$), or suspicious ($r = .357, p < .010$) individuals. These experiences might reinforce the negative attitude. On the other hand, perceiving substance users as someone vulnerable ($r = -.286, p < .001$) or appealing ($r = -.575, p < .001$) might change the attitude in a more positive direction. Furthermore, attitudes towards alcohol and drug use showed high intercorrelation ($r = .790, p < .001$).

DISCUSSION

While Allport's contact hypothesis [4] shows that repeated contact with members of a group may reduce stigma towards the group, our results may indicate that recurrent negative experiences with substance users rather increase the level of stigma towards them. Allport [4] also pointed out that positive effects of intergroup contacts may only occur if certain conditions (i.e., equal status, common goals, intergroup cooperation, and support of authorities) are fulfilled. In case of substance users, and especially in the case of illegal drug users, support of the authorities as a necessary condition for breaking stigma cannot be fulfilled as long as drug consumption is criminalized. Furthermore, healthcare as a potentially authoritarian system may prevent another condition to be fulfilled, namely the equal status between health professionals and patients. On the other hand, authoritarianism, as a potential predictor of negative attitudes towards substance users, was not a significant explanatory factor in our regression model. This result may contradict the findings of others, who found authoritarianism as an important domain of social stigma [21]. Nonetheless, our results support the assumption that the positive examples of the outgroup (i.e., SUD patients) might increase empathy towards these clients, whereas repeated negative experiences may deepen stigma towards this subpopulation. Emergency care professionals encounter SUD patients in a much more negative context, mostly critical situations, that might result in a significantly more negative attitude. Addiction professionals spend longer time with SUD patients, which allows them to get to know them more thoroughly and to establish a deeper professional connection resulting in a more positive and open-minded attitude. It needs to be mentioned that the differing characteristics and context of addictology and emergency care may also explain some of our results. While professionals from the field of addictology usually apply mixed pharmacotherapy and psychotherapy that require abstinence and sobriety, professionals of oxyology and emergency care often encounter unconscious patients or clients who are affected by the acute effects of the consumed psychoactive substances or those who do not have the essential time to thoroughly communicate with the patients. In addition to that, empathy, warmth, or genuineness are the core conditions of effective psychotherapy [22]. These therapeutic aspects may also contribute to the fact that addictology professionals are able – and are expected – to show a more accepting attitude towards their clients.

In this study, the negative attitude towards alcohol use and drug use showed a high intercorrelation compared to an earlier research conducted by Crisp et al. [23], who found that drug use is characterized by a more negative attitude attached to it. Our finding might be explained by societal changes resulting in a more open-minded attitude towards drug use and especially cannabis consumption. The fact that cannabis is now legal in various countries – and due to the fact that there are non-governmental organizations that promote legalization in Hungary as well – might have an impact on its perception as a relatively safe substance and

vice versa. Some authors [24] suggested that increases in cannabis consumption might rather be explained by a decrease in risk perception and not necessarily due to legalization itself. Dirisu et al. [25] pointed out that the fact that legalization can be associated with reduced risk perception may be a cause or a consequence as well.

We found the highest frequency of substance-use problems among family members in the group of addic-tology professionals. Based on this finding, an underlying motivation for career choice might be explained, although due to the cross-sectional design of the study we cannot assume causal relationship in this case. Furthermore, family-related substance-use problems did not have a significant impact on the variance of the attitudes towards drug or alcohol use.

Our finding that the knowledge in addic-tology (i.e., an increased knowledge about addiction or the effects of psychoactive substances) showed an association with positive attitudes towards SUD individuals is in line with the results of Swanson et al. [26] who emphasized that public beliefs about SUD might be influenced by the knowledge about this disorder.

Our result that emergency care professionals showed the most negative attitude towards SUD patients is an important problem to be solved. This phenomenon should be of a great concern, since a negative attitude affects the quality of patient care and may result in grave errors, malpractices, and a much faster burn-out of emergency care professionals [11]. In addition, another difficulty is the interaction between public stigma and self-stigma, which may adversely influence the success of treating patients with SUDs.

In their systematic review, Livingston et al. [27] over-viewed potential interventions to reduce different forms of stigma (including self-stigma, social stigma, and structural stigma). As a result, authors described that self-stigma might be reduced by utilizing therapeutic interventions (e.g., group-based acceptance and commitment therapy), social stigma may be decreased by applying motivational interviews or by communicating positive examples of people with SUDs, whereas structural stigma (e.g., the level of healthcare) can be changed by the methods of contact-based training or education programs targeting healthcare professionals.

Swanson et al. [26] further explained that personal experience with SUD individuals and media portrayals of people with SUD are also able to decrease public stigma towards substance users.

Limitations

This study also has limitations. Respondents' substance-use characteristics were measured by self-reports, which often lead to over- or underestimation. In addition to that, we assessed a relatively small sample, which might reduce the external validity (i.e., generalization potential) of our results. On the other hand, former studies about substance-use-related stigma used similar or even smaller sample sizes [28, 29]. An online questionnaire was used instead of a face-to-face measurement protocol. This might have caused further bias regarding the validity of our findings.

CONCLUSIONS

In order to initiate a change in emergency care profes-sionals' attitude, we suggest the introduction of a continuous sensitization program. In our view, such a program requires a complex approach in education, including an introduc-tion of pathophysiological view of SUDs in class, more field work in psychiatric care environment, and a focus on substance abuse in emergency settings. Positive exam-ples of SUD clients, personal stories of SUD patients, face-to-face discussion with a substance user are available and feasible methods to decrease structural stigma, and yet these approaches are not common in the Hungarian health-care system. Moreover, as a key point, we would like to emphasize the importance of lecturers' attitudes as well. At postgraduate stage, sensitization is still crucial and can be achieved by implementing a variety of field-work oppor-tunities within our system of credit-based professional training. At present, this is not a recognized or followed protocol in the current system. Some examples of these could be participating in needle exchange programs or treatment centre programs, joining open Alcoholics Anon-ymous meetings, or various research opportunities that allow for a deeper understanding of substance use.

Authors' contribution: KP developed the research plan, collected data, and summarized the scientific background of the paper. MK-F performed necessary calculations, carried out the statistical analysis, and finalized the text.

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