

## Reducing Mental Illness Stigma in Mental Health Professionals Using a Web-based Approach

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**Abstract:** *Objective:* This study was designed to investigate the efficacy of a web-based mental disorder stigma education program for mental health professionals. *Methods:* The sample consisted of 205 individuals who were either residents or specialists in psychiatry. Participants were contacted through a national web-based e-mail group that consisted of professionals in psychiatry, who were randomly assigned to experimental and control groups. The experimental group received an informative e-mail which contained a general account of “stigma” before they were asked to respond to an Internet-based questionnaire which was designed to predict their stigmatizing attitudes towards individuals with mental disorders. Control subjects, on the other hand, were asked to respond to the same Internet-based questionnaire without having been given the aforementioned informative e-mail. *Results:* The experimental group, compared to the control group, demonstrated a lesser stigmatizing attitude towards individuals with mental illness, as measured by the Internet-based survey which utilized the “social distance” concepts of stigma. *Conclusions:* These data suggest that such “anti-stigma” campaigns using the potential of the Internet might be an effective tool in the fight against the stigmatization of persons with mental illness.

### Introduction

Stigma has been identified by professionals as a key issue in mental illness. Stigmatizing attitudes may inhibit help seeking among individuals with a mental disorder, may provide barriers to their successful reintegration into society, and may increase their psychological distress (1).

Many stigma studies have focused on stigmatizing ideas and behaviors in the general population. Nonetheless stigma against the mental health consumers among mental health professionals is not a rare issue (2). Professionals appear generally in line with negative public views concerning the more explicit components of the stigmatizing process. These components, such as stereotyping and social distance (3), which are key dimensions of social stigma because avoidance is damaging, distressing, and disruptive to people’s lives (4). The fact that mental health professionals’ attitudes largely do not differ from negative public opinions of mental illness suggests a need to include mental health

profession as an important target group in anti-stigma efforts (3).

Mental health professionals are specifically trained to deal with, and obviously are in more contact with persons with mental illnesses. It would be natural to assume that, as a group, they would have less stigmatizing attitudes towards persons with mental illnesses as compared to the lay person, non-medical professionals, and/or medical students for that matter. However, this does not seem to be the case, and as stated above their stereotyping attitudes mirror those found in the general population. Therefore, knowledge about the disorder and constant contact do not seem to be enough in dealing with the problem of stigmatization. To deal with the problem of stigmatization by mental health professionals several strategies have been proposed. These include improving professional education, assuring the quality of professional contacts and preventing burn-out by relying on regular supervision (5). However, none have been specifically tested so far. Furthermore, there is a lack of knowledge as to the

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essential components that should be provided during professional education which would help lessen these stigmatizing attitudes.

Several studies describe the potential advantages of web-based education for health-care professionals (6). The Internet creates a cost-effective environment which is readily accessible by the targeted populations, and is expected to play an important part in providing continuing education for health-care professionals. However, research regarding the application of Internet-based learning in providing education for health-care professionals is still in its infancy (7). On the other hand, there is now evidence that Internet-based anti-stigma programs directed towards lay people have been successful in diminishing their stigmatizing attitudes and stereotypes (8, 9).

In this study we investigated whether an Internet-based anti-stigma campaign, targeting mental health professionals, and designed to focus on key issues of stigmatization and discrimination would be useful in reducing the stigma towards mentally ill persons among mental health professionals (e.g., psychiatrists and psychiatric residents).

## Materials and Method

### Subjects and setting

The study was conducted in Turkey by recruiting participants over the Internet. A national web-based e-mail group totaling 918 medical professionals in psychiatry (e.g., psychiatrists and

residents in psychiatry) were solicited to participate in the study via an e-mail notification. Of the 918 professionals contacted 713 of them either refused to participate or did not respond to the e-mail notification. Two hundred and five (205) individuals were enrolled in the study (22% of the individuals contacted).

Participants were randomly assigned to experimental and control groups. The experimental group (N=100) received an informative e-mail which contained a general account of "stigma" before they were asked to respond to an Internet-based questionnaire which aimed at predicting their stigmatizing attitudes towards individuals with mental disorders. Control subjects (N=105), on the other hand, were asked to respond to the same Internet-based questionnaire without having received the informative e-mail.

### Materials

An instructive e-mail was sent to the experimental group that presented a general account of stigmatization and consisted of the following propositions:

1. Stigma is based on beliefs, and discrimination occurs when actions are taken (or not taken) on the basis of a stigmatizing belief.
2. Stigma and discrimination occur in many settings, including the family, local community, school and health-care facilities.
3. There are many negative effects of stigma and discrimination.

Table 1. *Questionnaire statements*

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1. If an individual with mental illness resided in my neighborhood, I would not let my children go to movies unattended.
  2. If an individual with a previous mental illness was accepted for a job where I work, I would insist that he/she be fired.
  3. The important thing with the mentally ill is that you cannot know what they will be doing from one minute to the next.
  4. If I learned that someone I know had a mental illness, the likelihood that I could depend on him/her would significantly decrease.
  5. The main purpose of mental hospitals is to protect society from the mentally ill.
  6. No matter how fine they might seem, one should not forget for a moment that they are mentally ill.
  7. They should pass a legislation that prohibits giving hunting licenses to the mentally ill.
  8. My having heard that a person has a mental illness is sufficient proof that he/she is mentally ill.
  9. One's describing oneself as mentally ill is sufficient proof that he/she is mentally ill.
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4. There are many actions which can be taken by individuals and organizations to overcome stigma and discrimination. Psychiatrists as role-models and opinion-leaders have a lot more to do to diminish this widespread phenomenon and they should be aware of similar attitudes they might also hold.

The Internet-based questionnaire consisted of 9 statements each of which represented a popular stigmatizing opinion towards individuals with mental illness (see Table 1). Each statement was chosen from surveys used in earlier studies designed to examine population-wide stigmatizing tendencies in the domain of social distance. Measures of social distance try to assess a respondent's eagerness to interact with a target person in different types of relationships. Subjects were asked to rate their agreements with each statement on a 7-point Likert scale (1-Totally agrees and 7-Totally disagrees). Possible responses to the survey statements were ordered so that a higher score would indicate a lesser stigmatizing attitude. The questionnaires minimum and maximum scores were 9 and 63 respectively. A Cronbach's alpha of the social distance scale in our study was 0.664, which resembled that obtained in previous studies (10).

## Results

### Statistical Analysis

For the statistical analysis, we used the overall score that was obtained by adding the responses for each of the 9 items. Since these data were not normally distributed, we applied the Mann-Whitney U test.

A chi-square test was used to compare the proportions involved. Where appropriate, the Student's t test was utilized. All statistical tests were two-tailed and differences were considered as significant when  $p < 0.05$ .

The mean age and male-to-female ratio in the sample were  $41.4 \pm 9.4$  and 2.0, respectively. Resident and specialist ratios roughly matched each other (102 vs. 103). The control and experimental groups did not differ with respect to age and sex distribution. The two groups were also comparable with respect to the ratio of psychiatric residents to specialists.

We found that subjects from the experimental group had significantly higher overall questionnaire scores (i.e., less stigmatizing attitudes) (median = 55, range = 39–63) than subjects from the control group (median = 50, range = 15–63) ( $p = 0.0001$ ), hence subjects from the experimental group had lesser stigmatizing attitudes.

## Discussion

Our findings suggest that anti-stigma campaigns delivered to psychiatrists and psychiatric residents via the Internet might be effective in reducing stigma against individuals with mental disorders, among this particular subset of health-care professionals. The study also showed that well planned and delivered information may have some effect on stigmatizing attitudes, at least on the measure of social distance investigated in this study. The social distance scale of the experimental group, which was made aware of the existence of the problem, was higher at a statistical significance (i.e., less

Table 2. Age and gender distribution, ratio of psychiatric residents to specialists and overall questionnaire scores in control and experimental groups

| Variable                               | All respondents<br>N=205 | Control Group<br>N=105 | Experimental Group<br>N=100 |          |
|--|--------------------------|------------------------|-----------------------------|----------|
| Age (years)                            | 41.4±9.4                 | 41.1±9.7               | 41.7±9.2                    | p*=0.6   |
| Gender (male/female)                   | 137/68                   | 71/34                  | 66/34                       | p=0.8    |
| Resident/Specialist                    | 102/103                  | 51/54                  | 52/48                       | p=0.6    |
| Questionnaire Score<br>(median; range) | 52.5; 15–63              | 50; 15–63              | 55; 39–63                   | p=0.0001 |

stigmatizing attitudes) than that of the control group. Finally, the study also indicates that the Internet may be a powerful outreach tool in disseminating anti-stigmatization information since, this study, by relying solely on the Internet, was able to show some efficacy.

Although we were able to show some efficacy, there are several limitations of our study. This study was a cross-sectional survey and relied on self-reporting. In any study obtaining data using an Internet-based survey, selection bias can limit the generalizability of the results. It is also possible that professionals who responded to our e-mail and completed the survey (22% of the subjects constituting the e-mail group) were specifically interested in the subject and therefore may have been more prone to “social desirability” bias than a general sample of specialists and residents in psychiatry. Not wanting to appear as heartless professionals, subjects might have denied social distancing responses in order to appear enlightened and caring. Also, people in the sample were highly educated and were experienced users of computers and the Internet. Mental health professionals without Internet access or computer and Internet experience would certainly be out of the reach of a web-based anti-stigma program.

However, our study provides the first evidence for a feasible and effective strategy to combat stigmatization among health professionals. Unfortunately, a well-known limitation arises when one tries to determine real-life behaviors from reported intentions using self-administered surveys. Although behavioral intentions like social distance items are often good predictors of behavior, other factors such as situational circumstances can intervene so as to make the association far from perfect (10).

Several factors have been suggested as being responsible for a high stigmatizing tendency among mental health professionals. Clinicians who have contact with people who are unwell, and who selectively stop seeing people who have recovered, may therefore develop a pessimistic view of the outlook for people with mental illnesses. An extreme version of this process has been described for forensic psychiatrists whose working life consists of assessing and treating mentally ill offenders. As a consequence, such psychiatrists are inclined to be

even more cautious and pessimistic about disease outcomes than general psychiatrists (11). A burn-out phenomenon attached to the above-mentioned “physician bias” might also contribute to the process. Therefore, future research is needed to assess effectiveness of such strategies like regular supervision to prevent burn-out and educational programs supporting recovery notions of mental illness.

Based on our findings, future research is required to build a more sophisticated and systematic model which might be repeatedly delivered to mental health professionals. As stated above a single intervention showed some efficacy. It would be useful to investigate how repeated information delivery effects the variables measured in this study especially does each repeated administration have a corresponding effect, and is there an upper limit to the effect that this type of intervention can have (of course taking into account test-retest bias). Also the efficacy of Internet-based education might be assessed with some implicit and behavioral measurements since in this study a one-time intervention over the Internet was able to provide some results. A second line of outcome assessments might be derived from observations of health-care consumers’ self-stigma (12) and their general ideas about the mental health professionals (13), in order to acquire a real-life account of stigma that emerges during utilization of psychiatric services. These findings might also be used as baseline for more systematic models to be developed in the future, and effectiveness of such models could be assessed by comparing outcome measures between our model and newer models.

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