# Implications of Educating the Public on Mental Illness, Violence, and Stigma

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**This study examined how two types of public education programs influenced how the public perceived persons with mental illness, their potential for violence, and the stigma of mental illness. A total of 161 participants were randomly assigned to one of three programs: one that aimed to combat stigma, one that highlighted the association between violence and psychiatric disorders, and a control group. Participants who completed the education-about-violence program were significantly more likely to report attitudes related to fear and dangerousness, to endorse services that coerced persons into treatment and treated them in segregated areas, to avoid persons with mental illness in social situations, and to be reluctant to help persons with mental illness. (*Psychiatric Services* 55:577–580, 2004)**

Results of a nationwide probability survey showed that 75 percent of the public view persons with mental illness as dangerous (1). Why do so many members of the general public think that mental illness is strongly linked to a potential for violence? Two answers are common: that this view represents the impact of the stigma of mental illness and that this view is an accurate representation of the level of dangerousness among persons with mental illness. The purpose of this study was not to determine which of the two responses is more accurate but rather to explain the impact of educating the public on the two perspectives.

Some advocates believe that highlighting the relationship between violence and mental illness may be a significant wake-up call for the public (2). D. J. Jaffe of the Treatment Advocacy Center suggests, "Laws change for a single reason, in reaction to highly publicized incidences of violence. People care about public safety. I am not saying it is right. I am saying this is the reality. . . . So if you're changing your laws in your state, you have to understand that" (3). Other advocates point to studies that show that stereotypes about the dangerousness of persons with mental illness are a key source of prejudice and discrimination against persons with mental illness by the public (4,5). These two positions lead to contradictory public education goals. In this study we examined the impact of two public education programs—one that aimed to combat the stigma of mental illness and one that highlighted the association between violence and psychiatric disorders—on participants' attitudes toward persons with mental illness and their resource allocation preferences for different types of mental health programs.

## Methods

A total of 161 persons from a local community college were informed of our study and were asked to participate; all agreed and completed all measures. By means of a random number table, participants were randomly assigned to one of three conditions: an education-about-violence program, an education-about-stigma program, and a control program, in which issues related to mental illness or physical disability were not discussed. Each program was scripted and read verbatim, accompanied by eight to 12 slides. Four presenters were rotated through the conditions so as to diminish any unintended effects that may have resulted from different presentation styles. Two of the research conditions in this study—the education-about-stigma program and the control program—have been studied previously (6,7).

The education-about-violence program juxtaposed facts about mental illness and violence—for example, "Fact: Annually approximately 1,000 homicides are committed by individuals with untreated mental illness"—with poignant examples of persons with mental illness who did not receive effective treatment—for example, "July 24, 1998: Russell Weston killed two U.S. Capitol guards" (8). The education-about-stigma program reviewed seven myths that were drawn from the literature (7) and presented facts that challenged these myths. This program also showed several poignant examples of persons with mental illness with differing illness courses and outcomes.

Research participants completed three sets of measures to assess the impact domains that are of interest to public education: attitudes, behavioral decisions, and resource allocation. So that participants' attitudes and behavioral decisions could be as-

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sessed, research participants completed the Attribution Questionnaire (7). The questionnaire presented a very short, neutral statement about a man named Harry who has been hospitalized for schizophrenia, followed by 27 items that measured participants' responses to Harry on a 9-point Likert Scale; (1, not at all, through 9, very much) (7). On the basis of our earlier work, the following six factor scores were obtained from the Attribution Questionnaire to answer the questions of this study: dangerousness, for example, "I would feel unsafe around Harry"; fear, for example, "Harry would terrify me"; avoidance (reverse scored), for example, "If I were an employer, I would interview Harry for a job"; coercion, for example, "If I were in charge of Harry's treatment, I would require him to take his medication"; segregation, for example, "I think it would be best for Harry's community if he were put away in a psychiatric hospital"; and help, for example, "How likely is it that you would help Harry?" Research participants were administered the Attribution Questionnaire immediately before the program (pretest), immediately after the program (posttest), and one week after the program (follow-up test).

Participants were told to rank the importance of allocating state monies to one of four mental health services on a 9-point Likert scale (1, not at all important, to 9, extremely important); the measure was based on a research method of Skitka and Tetlock (9). The four mental health services were selected to represent treatment options that represented either coercion, punishment, empowerment, or independence. The treatment options had been previously shown to represent these features in a pilot study in which 17 students and staff members used Likert scales to rate how they perceived eight mental health services. Items from the resource allocation measure were combined to yield two subscale scores: the importance of funding rehabilitation services (vocational rehabilitation and psychosocial rehabilitation services), which represented empowerment and independence, and the importance of funding mandated treatments (involuntary hospitalization and outpatient commitment), which represented coercion and punishment. We administered the resource allocation measure at posttest and at the one-week follow-up.

## Results

Participants had a mean±SD age of 25.8±9.7 years, and 67 percent were women. In terms of marital status, 73 percent of the participants were single, 19 percent were married, 2 percent were separated, 6 percent were divorced, and 1 percent were widowed. A total of 60 percent of the participants were European American, 42 percent were African American, 4 percent were Latino, and 4 percent were from another racial or ethnic group. Some participants indicated more than one racial or ethnic group. In terms of education, 8 percent of the participants completed high school, 85 percent completed some college, and 7 percent had a college degree.

Table 1 summarizes the mean±SD subscale scores of participants. To test how the two types of programs affected participants' attitudes and behavioral decisions toward persons with mental illness, two sets of three-by-two analyses of variance (ANOVAs) (condition by trial) and post hoc tests were completed for each of the six subscale scores of the Attribution Questionnaire: pretest versus posttest scores and pretest versus follow-up.

Persons in the education-about-violence group consistently demonstrated more negative attitudes and behavioral decisions toward persons with mental illness. In terms of participants' attitudes about the dangerousness of persons with mental illness, the scores of the education-about-violence group increased significantly from the pretest to the posttest and from the pretest to the follow-up test; however, the scores of the education-about-stigma group and the control group decreased from the pretest to the posttest and from the pretest to the follow-up test. Closely corresponding to concerns about dangerousness, a significant interaction was found for the differences between the pretest and posttest scores across the three groups for fear and avoidance; only fear showed a significant interaction for the pretest to follow-up analysis. Results from post hoc tests showed that persons in the education-about-violence group showed significantly higher rates of fear and were significantly more likely than participants in the other two groups to avoid persons with mental illness in social places. Persons in the education-about-stigma group were significantly less likely to endorse social avoidance than those in the control group.

Differences were also found for endorsement of coercion and segregation. A significant interaction was found for both measures representing the difference from pretest to posttest across conditions; a significant interaction was also found for segregation for the pretest to follow-up difference. Post hoc tests showed that persons in the education-about-violence group were significantly more likely than those in the other two groups to endorse coercing persons with mental illness into treatment and setting up treatment in segregated areas. The last subscale score represented a research participant's willingness to help a person with mental illness. Posttest scores showed that participants in the education-about-stigma group were more willing to help persons with mental illness than were participants in either of the two other groups; however, a significant interaction was found only for the difference between pretest scores and posttest scores.

Findings from the resource allocation measure tested whether the education conditions affected participants' preferences for funding mental health programs. One-way ANOVAs did not find a significant effect between the three groups in the pretest or posttest scores for the importance of funding mandated treatments or rehabilitation services. Two-by-two post hoc ANOVAs were completed to determine whether any significant change from the posttest to follow-up scores was evident in pairwise comparisons. No significant results were found. However, we did find a nonsignificant trend that indicated that the education-about-stigma group

***Table 1***

Measurement of attitudes and behavioral decisions toward persons with mental illness and of the allocation of funds for mental health programs among 161 persons participating in two types of educational programs

| Dependent measure | Control group (N=55) | | | Education-about-violence group (N=58) | | | Education-about-stigma group (N=48) | | | Pretest versus posttest[a] | Pretest versus follow-up[a] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pretest | Posttest | One week follow-up | Pretest | Posttest | One week follow-up | Pretest | Posttest | One week follow-up | | |
| Attribution questionnaire scores (mean±SD)[a] | | | | | | | | | | | |
| Dangerousness | 12±5.2 | 10.9±5.3 | 10.5±5.7 | 10.8±5.5 | 13.5±7.1 | 12.2±5.9 | 11.2±6.4 | 9.6±6.4 | 9.2±5.7 | Condition F=1.25[c]<br>Trial F=.04[c]<br>Interaction F=19.1[d***] | Condition F=.52[e]<br>Trial F=6.97[e**]<br>Interaction F=10.4[f***] |
| Fear | 10.2±5.6 | 10.1±5.7 | 9±5.8 | 8.2±5.3 | 11.4±6.9 | 11.1±6.3 | 9.3±6.9 | 8.3±6.4 | 8.5±5.8 | Condition F=.73[c]<br>Trial F=4.92[c*]<br>Interaction F=16.9[d***] | Condition F=.75[e]<br>Trial F=.58[e]<br>Interaction F=14.5[f***] |
| Avoidance | 15.9±6.3 | 16±6.3 | 15.6±6.1 | 16.2±5.6 | 14.5±6.2 | 15.2±5.8 | 16.8±6.2 | 18.2±6.3 | 16.8±6.6 | Condition F=1.84[c*]<br>Trial F=.01[c]<br>Interaction F=8.88[d***] | Condition F=.36[e]<br>Trial F=.28[e]<br>Interaction F=1.98[f] |
| Coercion | 17.1±4.1 | 16.2±4.9 | 16.3±5.1 | 16.7±4.7 | 19±4.6 | 17.8±5.8 | 17.5±4.5 | 16±5.1 | 16.5±5.5 | Condition F=1.39[c]<br>Trial F=.01[c]<br>Interaction F=13.1[d***] | Condition F=.14[e]<br>Trial F=.21[e]<br>Interaction F=2.47[f**] |
| Segregation | 9.8±5.3 | 9±4.7 | 8.8±5.5 | 8.8±4.3 | 12.2±6.4 | 10.9±5.5 | 9.2±5.7 | 7.5±5 | 8.1±5.2 | Condition F=2.46[c]<br>Trial F=.8[c]<br>Interaction F=24.9[d***] | Condition F=.78[e]<br>Trial F=.01[e]<br>Interaction F=5.13[f**] |
| Help | 20.3±5.6 | 20±6.4 | 19.1±6.3 | 20.6±5.5 | 19.4±5.9 | 19.2±6.2 | 20.6±4.9 | 21.8±5.1 | 20.9±5.2 | Condition F=1.58[c]<br>Trial F=.01[c]<br>Interaction F=9.06[d**] | Condition F=.57[e]<br>Trial F=.52[e]<br>Interaction F=2.2[f] |
| Resource allocation measure scores (mean±SD)[b] | | | | | | | | | | | |
| Mandated care | | 13.8±3.6 | 13.2±4 | | 14.6±3 | 14±3.6 | | 13.8±3.6 | 13.9±3.4 | Condition F=1.01[d] | Condition F=.51[d] |
| Rehabilitation services | | 14.5±3 | 13.7±3.3 | | 14.6±2.7 | 14.1±3.1 | | 14.2±3.2 | 14.5±2.8 | Condition F=2.4[d] | Condition F=.58[d] |

[a] Analyses of variance. Trial refers to pretest, posttest, or follow-up test; condition refers to education about violence, education about stigma, and control.
[b] Scores ranged from 1 to 9, with higher scores indicating stronger endorsement.
[c] df=1, 158
[d] df=1, 109
[e] df=2, 158
[f] df=2, 158
[g] Scores ranged from 1 to 9, with higher scores indicating greater importance.
*p<.05
**p<.01
***p<.001

was more likely than the education-about-violence group to support funding for rehabilitation services at the time of follow-up. This finding runs counter to the argument on some fronts that educating the public about the potential for violence among persons with mental illness will lead to more funds for mental health programs.

## Discussion and conclusions

Our findings consistently question the strategy of highlighting the association between untreated mental illness and violence, which has been touted by some community groups. Research participants who completed programs that educate the public on this association reported that persons with mental illness are more dangerous and should be feared. This finding seemed fairly obvious because of the nature of the education-about-violence program. Persons who completed the education-about-violence program also tended to endorse treatment programs that segregate persons with mental illness from the community and that promote coercive or mandated treatments. Perhaps most stigmatizing were the findings that participants who completed education-about-violence programs were more likely to withhold help from people with mental illness and avoid them socially.

Proponents of public education programs that focus on the association between violence and mental illness might respond to these findings by arguing that increasing negative attitudes about mental illness is a necessary evil when trying to get the public in general, and legislators in particular, to increase resources for mental health services. If this assertion is correct, we would have expected participants' assessments to indicate that more resources should be provided for mental health services after they participated in the education-about-violence program. However, findings from our study did not support this kind of conclusion. Posttest and follow-up measures did not find a significant endorsement of more resources for mandated treatments or rehabilitation services across any of the three groups. Interestingly, a nonsignificant trend seemed to yield findings that contradicted the education-about-violence perspective.

Of course, researchers should always be skeptical about conclusions that are based largely on null findings. Findings from our study did not clearly challenge the assertions that education-about-violence programs lead to a greater support for allocating funds for mental health programs. However, our evidence also did not support these assertions. Hence, community groups should not use information about the link between mental illness and violence in an attempt to improve resources for mental health programs. Finally, findings from our study were somewhat limited in terms of generalizability because college students, who tend to be more educated than the general population, were recruited for our study. Additional research should include a more diverse sample. ♦

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