Impact of Computer-Assisted Education about Psychiatric Stigma on Medical Students

Oleg Lapshin[a], Evgeny Wasserman[b], Joseph Finkelstein[a]

[a]Johns Hopkins University of Maryland School of Medicine, Baltimore, MD, USA
[b]St. Petersburg State University School of Medicine, St. Petersburg, Russia

Abstract and Objective

Stigma of psychiatric disorders among medical students may both preclude them from using mental health services and may affect their future professional lives. We assessed the impact of computer-assisted educational program about psychiatric stigma in 51 medical students attending large state university in Russia. The study results showed significant impact of the educational program on psychiatric stigma and knowledge about psychiatric disorders and stigma. The anti-stigma program was very well accepted by students. We concluded that computer-assisted anti-stigma interventions are useful and effective in medical students.

Keywords:

Psychiatric stigma, Medical students, Computer-assisted education.

Methods

Convenience sample of 51 consecutive medical students was used to assess the impact of anti-stigma computer-assisted education system (Anti-Stigma CO-ED). The algorithm of computer-assisted education was driven by adult learning theories. All study participants were evaluated before (pre-test) and immediately after using the Anti-Stigma CO-ED system (post-test). We collected information on socio-demographic data and mental health history of the participants before the intervention. Stigma was measured using the Bogardus Scale of Social Distance (BSDS) and the Community Attitudes toward the Mentally Ill (CAMI) scales. BSDS allows measurement of stigma toward people with different stigmatized conditions. The students were given three copies of the BSDS with the vignettes on severe heart (BSDS-HEART), skin (BSDS-SKIN) and psychiatric disease (BSDS-PSYCH) correspondingly. We also assessed students' knowledge on the most common misconceptions about psychiatric patients before and after intervention using multiple-choice questions.

Results

The average age of the study participants was 20.4± 1.9 years, 15 of them were males. The students completed 13.8 ± 1.5 years of education by the moment of the study. Regarding their mental health, 13 (25.57%) students thought they had serious emotional or psychiatric disorder in the past, and about twice as much had episodes of depressed or anxious mood, or other serious psychological problems for more than 2 weeks.

After the intervention, the Bogardus Scale of Social Distance score toward psychiatric patients decreased from 19.2 ±4.2 points (pre-test) to 15.2±4.5 (post-test, $p<.0000001$). The level of social distance toward people with heart and skin diseases also significantly decreased after the intervention. In particular, BSDS-HEART score decreased from 12.3 ±3.2 to 11.5 ±3.3 points ($p<.01$), whereas BSDS-SKIN score decreased from 14.3 ±4.9 (pre-test) to 12.7 ±4.3 (post-test; $p<.002$).

The CAMI Authoritarianism, score changed from 24.7 ± 4.3 to 20.0 ± 4.3 ($p<.0001$); Benevolence from 41.2 ± 3.9 to 43.5 ± 5.3 ($p<.02$); and Restrictiveness from 26.7 ± 5.6 to 20.4 ± 5.6 ($p<.0001$). Knowledge about psychiatric disorders and stigma increased (10.9 ± 3.0 points vs. 22.1 ± 2.6 points, $p<.0001$). The students spent in average 50.3±19.4 minutes to complete the program. After adjusting for the non-psychiatric stigma changes using linear regression, the psychiatric stigma reduction remained a significant factor associated with the post-test BSDS-PSYCH score ($p=0.001$), and post-test CAMI score.

Conclusion

Computer-assisted educational interventions can effectively diminish the level of psychiatric stigma among medical students. The computer-assisted anti-stigma program was very well accepted by students.