Application of a Web-based System to Screen for Hidden Depressive Patients

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Abstract and Objective

Although depression has been regarded as a major public health problem, many individuals with depression still remain undetected or untreated. The Internet may help to detect the hidden depressive patients. The study used the Internet-based Self-assessment Program for Depression (ISP-D) for people to freely screen depressive disorder online. The results showed that 73.9% of 1656 participants had some kind of depressive disorders and 56.2% of them never sought for professional help. We concluded that Web-based tools could help screen the hidden depressive disorders for whom could assess the Internet.

Keywords: Information Services, Psychiatric Status Rating Scales, Internet, Depression

Introduction

The World Health Organization Global Burden of Disease study in 1997 predicted that clinical depression will be the second most burdensome illness in the world by the year 2020. The prevalence of depressive symptoms is high, ranging from 20% to 41% of the total population. However, many individuals with depression remain undetected or go untreated. Computer-administered depression assessment programs have been developed to facilitate the administration and screening of depression, but they still require that people come to a clinical setting to take the test. The Internet provides advantages that may greatly improve the utility of computer-administered diagnostic programs and detecting hidden depressive patients.

In the present study, we used the Internet-based Self-assessment Program for Depression (ISP-D) for people to screen depressive disorders online and analyzed the results.

Methods

ISP-D was designed to detect major depressive disorder (MDD), minor depressive disorder (MinD), and subsyndromal depressive symptoms (SSD). Previous studies found that the test-retest reliability of the ISP-D was good within a 2-week interval and its criterion validity was comparable to that observed with written tests. The current study provided online ISP-D service for Internet users to assess depression by oneself in a short amount of time. The ISP-D can provide a continuously available depression screening method that is accessible to a large number of individuals across a broad geographic area. We analyzed the test results between Jan 2001 and Jan 2002 to understand the effect of ISP-D in the detection of people with hidden depressive disorders.

Results

There were 1656 tests performed during the period. The mean age for the participants was 25.3 ± 7.3 years and their mean education level was 14.7 ± 2.5 years. Most of the participants were female (75.1%), and single or separate (84.5%). The distributions of MDD, MinD, SSD, and no depression were 37.9% (n = 627), 12.9% (n = 213), 23.2% (n = 384), and 26.1% (n = 432), respectively. The mean Internet test time was 8.7 ± 6.4 minutes. Among the participant, 56.2% of them never sought for professional help.

We compared the participants who ever sought for professional help and those who never sought for professional help. We found that those who ever sought for professional help were significantly older, with higher educational level, with more depressive symptoms, with more comorbid medical conditions, with more family history of mental illness and more females than those who never sought for professional help.

Conclusion

In our one-year survey, more than 70% of people who performed the ISP-D tests were screened as having depressive disorders. More than half of them never sought professional help before. Therefore, Web-based screening tools may greatly facilitate people to detect the hidden depressive disorders.