Predicting user preferences for educational content based on the results of an automated evaluation for alcohol use problems

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ABSTRACT

Computer programs may be more effective than traditional self-help manuals because they are interactive, and can automatically modify their content to meet the specific needs of a user. Successfully predicting the type of information that will be most relevant to an individual may lead to greater engagement with the program and better outcomes. The current study tests the association of information obtained during an automated evaluation for alcohol use problems with subsequent preference for educational modules.

BACKGROUND

- Web-based information packages for patients that combine health information with behavior change support have the potential to reach populations with mental health illnesses who do not access currently available services.
- One such population is substance abusers. The treatment rates of substance abuse disorders are low despite the high degree of morbidity associated with these illnesses, and the demonstrated efficacy of currently available interventions.
- Unlike printed material, a web-based intervention has the capacity to engage the user through interactivity, personalized feedback, and presentation of material that is most directly relevant to the individual needs of each user.
- Presentation of information that is most salient to the individual user can increase engagement with the program, and adherence to the treatment.

METHODS

Alcohol/CheckUp was designed as an interactive health communication application based on the principles of motivational interviewing. Users were guided through a series of standardized assessment instruments, and then provided with individualized feedback messages to highlight the consequences associated with excessive consumption of alcohol. After receiving feedback, users were offered information modules that addressed four areas of potential interest: social and psychological problems associated with alcohol; health risks of excessive alcohol consumption; having fun without alcohol; and managing cravings.

Users were able to view one, more than one, or none of the modules.

CONCLUSION

An automated intervention can collect a great deal of information about users’ attitudes, alcohol use patterns, and individual priorities. This information can be used to predict preference for specific educational content.