Cyber Psychiatry: A Review of Internet Self Help Sites for Depression and Related Problems

Gordana Culjak
Department of Information Systems, Faculty of Information Technology
University of Technology, Sydney
City Campus, 1 Broadway NSW 2007, Australia
e-mail: gordana@it.uts.edu.au, Tel: +61 2 9514-1833, Fax: +61 2 9514 4492

ABSTRACT
The aim of this research study is to define, explore and evaluate the availability and classification of the types of currently available Internet self-help sites addressing depression and related problems. Its aim is to develop an understanding of what is available for young people at risk of depression who would otherwise perhaps not seek help, using such sites as a health aid prior to, or as part of primary treatment.

Globally, depression is the third major cause of disability, following heart disease and cancer. It is predicted that it will be the second most common cause of global disability by 2020 and is currently a major risk factor for suicide and suicidal behaviour. Over 27% of young adults have a current mental disorder, with depression being the most prevalent (10.8%). Most of these young people are unlikely to get professional help. Though there are Internet-based self-help programs online, they are primarily information-based, low-level, repetitive or self-serving, as opposed to valuable, credible, reliable sources of psychological help or advice. Evidence-based interactive programs developed specifically for young people, are not yet available. Recommendations are also made for further research in applying information technology to help solve such issues.

INTRODUCTION
The Internet is growing exponentially as an influential source of knowledge and information, with an exponential growth pattern1. Users look for more information on depression than they do for heart disease or cancer2.

Globally, depression is the third major cause of disability, following heart disease and cancer3 and is predicted to be the second most common cause of global disability by 20204. The prevalence of depression in the young adult (20-24 year old) population is approximately 10% (Table 1).

Depressive disorder is one of the strongest risk factors for suicide. One study found that 62% of undergraduate Australian University students reported suicidal ideation and 6.6% had had one or more attempts, over half of which did not use any type of mental health services5.

The majority of young people are unlikely to access professional services. One-third of subjects with a current disorder reported contacting psychiatric services and only 16% continued this contact4. Most people on average took over ½ years (85 weeks) to seek help5. Self-help sites in these particular age groups may provide access to care or information that could have a role in preventing self-harm.

OBJECTIVES
This study aims to prepare a web services review to define, explore and evaluate the availability and classification of interactive and evidence based self-help web sites for young people suffering from depression or related problems. The aim is not to evaluate the quality of general websites on depression as similar studies have been performed previously, suggesting poor information quality overall6-10.

RESEARCH METHODS
Google was chosen as the main search engine as it is the most comprehensive11 and ranked about equal to the top in quality11. The search criteria used was “(self-help website) and (depression or psychological)”12. This yielded approximately 6,530 results, and to ensure a most comprehensive study, the top-ranked 1501 sites were explored. Few people search further than the first 10 links12. Sites that required registration or payment prior to access were excluded, as this would be a possible deterrent to web surfers of low mood.

A classification rank score (1-3) was devised as an estimate of the usefulness and availability of direct help information and resources. Useful sites for immediately accessing direct help and constructive advice, referral, screening or treatment without having to traverse through a multitude of links to get to the information, scored a rank of 1. Low value-add sites given an overall score of 2 mainly held textual information in the form of definitions and links to other sites. A rank score of 3 was given to sites that seemed less useful in terms of information and

<table>
<thead>
<tr>
<th>Study &amp; Subjects (n)</th>
<th>Year</th>
<th>Age (years)</th>
<th>Mental Health Issue</th>
<th>Finding Summary</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aalto-Saeta et al.⁴</td>
<td>2001</td>
<td>20-24</td>
<td>Depression disorders</td>
<td>10.8% 23.8%</td>
<td>US Study</td>
</tr>
<tr>
<td>Haarasilta et al.⁵</td>
<td>2000</td>
<td>20-24</td>
<td>Major Depressive Episode</td>
<td>9.4%</td>
<td>10.7% females 8.1% males Finnish Study</td>
</tr>
<tr>
<td>Kessler &amp; Walters⁶</td>
<td>1998</td>
<td>Adolescents &amp; Young Adults</td>
<td>Major Depression</td>
<td>15.3% 5.8%</td>
<td>Lifetime prevalence -3-day prevalence - US National Comorbidty Survey</td>
</tr>
</tbody>
</table>

Table 1: Prevalence Statistics on Depression and Related Disorders in Young Adult Populations
RESULTS

This study found that highly reliable and directly helpful Internet self-help resources were not instantly accessible, nor readily available. A large proportion of the information is basic, low-level, repetitive or self-serving. The main purposes of all of the web sites explored are shown in Table 2.

One in 10 (12%) sites investigated featured services for young adults (Table 3). Three sites were mainly for professionals, rather than the general public. Only one in three of the young adult self-help sites offered direct links to advice, referral, screening or treatment, as each gave textual information or links to further resources. Most sites offered general information and advice (Table 2).

An important factor noted when exploring the sites was the target age group (Table 3). Two out of five websites showed some level of interactivity (Table 4), though limited to a chat room, test or quiz in most cases. A proportion (11.3%) was judged as evidence based as they had links to journals, journals databases or well-known medical bodies. No sites showed any official endorsement or recognizable quality standard by being linked to a web-trust assessment body, like DISCERN for instance.

The researcher classified the sites (see Table 4) according to their level of interactivity, their evidence based capacity, involvement with professional bodies or drug companies, and the costs for access and treatment. Of the sites investigated, one site offered an online anxiety management program for 2 hours per week for 6 weeks, and required payment.

Table 5 illustrates how useful self-help sites were for obtaining direct help and constructive advice on depression without having to navigate a multitude of links. Most sites are information based and do not readily supply evidence-based interactive programs specifically for the target group in question.

Sites awarded a Level 1 Classification Rank are relatively rare. They typically include a combination of screening, referrals, information links, and definitions. An illustrative example is the North Carolina Psychology Association Website, which features a discussion area, practical advice. This incorporated sites that seemed to have a degree of author self-interest or drug company advertisement.

**Table 2: Main Purpose Categories of Self-Help Websites Surveyed**

<table>
<thead>
<tr>
<th>Main Intention</th>
<th>Primary Purpose Sites n/150 (%)</th>
<th>One of the main purposes n/150 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
<td>145 (96.5%)</td>
<td>149 (99.3%)</td>
</tr>
<tr>
<td>Advice</td>
<td>2 (1.3%)</td>
<td>47 (31.3%)</td>
</tr>
<tr>
<td>Referrals</td>
<td>1 (0.6%)</td>
<td>19 (12.6%)</td>
</tr>
<tr>
<td>Treatment</td>
<td>0</td>
<td>2 (1.3%)</td>
</tr>
<tr>
<td>Definitions</td>
<td>1 (0.6%)</td>
<td>35 (23.3%)</td>
</tr>
<tr>
<td>Screening</td>
<td>1 (0.6%)</td>
<td>38 (25.3%)</td>
</tr>
</tbody>
</table>

**Table 3: Self-help website target population groups by age**

<table>
<thead>
<tr>
<th>Target Audience</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>132 (88%)</td>
</tr>
<tr>
<td>Children (~1-12)</td>
<td>6 (4%)</td>
</tr>
<tr>
<td>Adolescence (~13-20)</td>
<td>10 (6.6%)</td>
</tr>
<tr>
<td>Young Adults (~21-24)</td>
<td>19 (12.6%)</td>
</tr>
<tr>
<td>Adults (25+)</td>
<td>4 (2.6%)</td>
</tr>
<tr>
<td>Elderly</td>
<td>0</td>
</tr>
</tbody>
</table>

ACKNOWLEDGMENTS

The author would like to thank Dr. Nick Kowalenko, Director of Child and Adolescent Psychiatry at Royal North Shore Hospital, Clinical Lecturer at the University of Sydney, and Dr. Elaine Lawrence, Senior Lecturer, Department of Computer Systems, Faculty of Information Technology, University of Technology Sydney, for reviewing the manuscript.

REFERENCES

The 12-month prevalence and characteristics of major depressive episode in a representative nationwide sample of adolescents and young adults. Psychological Medicine. 31(7):1169-79.


Related Content

Enhancement of TOPSIS for Evaluating the Web-Sources to Select as External Source for Web-Warehousing

An Optimization Model for the Identification of Temperature in Intelligent Building
ZhenYa Zhang, HongMei Cheng and ShuGuang Zhang (2013). *Interdisciplinary Advances in Information Technology Research* (pp. 116-124).
[www.irma-international.org/chapter/optimization-model-identification-temperature-intelligent/74536](www.irma-international.org/chapter/optimization-model-identification-temperature-intelligent/74536)

Cryptanalysis and Improvement of a Digital Watermarking Scheme Using Chaotic Map

Gamification
[www.irma-international.org/chapter/gamification/112729](www.irma-international.org/chapter/gamification/112729)

Ethical Decision-Making and Internet Research: Recommendations from the AoIR Ethics Working Committee
[www.irma-international.org/chapter/ethical-decision-making-internet-research/28291](www.irma-international.org/chapter/ethical-decision-making-internet-research/28291)