



# 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](mailto: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 pattern<sup>1</sup>. Users look for more information on depression than they do for heart disease or cancer<sup>2</sup>.

Globally, depression is the third major cause of disability, following heart disease and cancer<sup>3</sup> and is predicted to be the second most common cause of global disability by 2020<sup>3</sup>. 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 services<sup>7</sup>.

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 contact<sup>4</sup>. Most people on average took over 1½ years (85 weeks) to seek help<sup>8</sup>. 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 overall<sup>9-13</sup>.

## RESEARCH METHODS

Google was chosen as the main search engine as it is the most comprehensive<sup>14</sup> and ranked about equal to the top in quality<sup>15</sup>. The search criteria used was "(self-help website) and (depression or psychological)". This yielded approximately 6,530 results, and to ensure a most comprehensive study, the top-ranked 150<sup>1</sup> sites were explored. Few people search further than the first 10 links<sup>12</sup>. 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 1: Prevalence Statistics on Depression and Related Disorders in Young Adult Populations

Study & Subjects (n)	Year	Age (years)	Mental Health Issue	Findings	Details
Aalto-Saetaelae et al. <sup>4</sup> n=706.	2001	20-24	Depression Mental disorders	10.8% 23.8%	US Study
Haarasilta et al. <sup>5</sup> n=443.	2000	20-24	Major Depressive Episode	9.4%	10.7% females 8.1%males Finnish Study
Kessler & Walters <sup>6</sup> n=1,769	1998	Adolescents & Young Adults	Major Depression	15.3% 5.8%	-Lifetime prevalence -3-day prevalence US National Comorbidity Survey

practical advice. This incorporated sites that seemed to have a degree of author self-interest or drug company advertisement.

## 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<sup>9</sup>.

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<sup>16</sup>.

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<sup>17</sup>, which features a discussion area,

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

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

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

Target Audience	n (%)
General	132 (88%)
Children (~1-12)	6 (4%)
Adolescence (~13-20)	10 (6.6%)
Young Adults (~21-24)	19 (12.6%)
Adults (25+)	4 (2.6%)
Elderly	0

Table 4 : Classification of issues of importance for the potential web searcher

Other Features of Interest	n (%)
Interactive	61 (40.6%)
Evidence-Based	17 (11.3%)
Professional Affiliation	71 (47.3%)
Drug Company Involvement or Sponsorship	16 (10.6%)
Cost for Access	2 (1.3%)
Cost for Treatment	3 (2%)

Table 5 : Overall Classification Rank of Self-Help Depression Sites

Overall Score	n (%)
1 - Direct help/advice	22 (14.6%)
2 – Information based	79 (52.6%)
3 - Irrelevant, or of relatively low credibility	48 (32%)

a frequently asked questions site, a “How to find a Psychologist” referral link and various other resource links. Most sites (Table 5) held a lot of textual information, with links to many other sites and were classified in the Level 2 category.

## CONCLUSION

This study revealed that the type of sites available are primarily information-based, rather than a direct source of psychological help or advice. Though there are Internet-based self-help programs available, specialist evidence-based interactive programs developed specifically for young people, are not yet available. Further research and development needs to be done into the potential use and effectiveness of specialist website depression programs which are interactive and evidence-based, targeted specifically to the needs of these young people.

## 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

1. Lawrence, E et al, 2000, *Internet Commerce: Digital Models for Business*, (2<sup>nd</sup> Edition) John Wiley, Brisbane.
2. Taylor, H. Explosive growth of “cyberchondriacs” continues. (The Harris Poll #47) 5 August 1999. Available at: [http://www.harrisinteractive.com/harris\\_poll/index.asp?PID=117](http://www.harrisinteractive.com/harris_poll/index.asp?PID=117)
3. Murray C.J.L. and Lopez, A.D. (1996). The global burden of disease: A comprehensive assessment of mortality and disability from diseases, injuries and risk factors in 1990 and projected to 2020. *World Health Organisation, World Bank and Harvard School of Public Health*.
4. Aalto-Setälä, T., Marttunen, M., Tuulio-Henriksson, A., Poikolainen, K. and Lonnqvist, J. (2001). One-month prevalence of depression and other DSM-IV disorders among young adults. *Psychological Medicine*. Vol 31(5): 791-801.
5. Haarasilta, L., Marttunen, M., Kaprio, J. and Aro, H. (2001).

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.

6. Kessler, R.C., and Walters, E.E. (1998). Epidemiology of DSM-III-R major depression and minor depression among adolescents and young adults in the National Comorbidity Survey. *Depression & Anxiety. Department of Health Care Policy* 7(1):3-14 Harvard Medical School, Boston.

7. Schweitzer, R., Klayich, M. and McLean, J. (1995). Suicidal ideation and behaviours among university students in Australia. *Australian & New Zealand Journal of Psychiatry*. 29(3):473-9

8. Phillips, L., Yung, A.R., Hearn, N., McFarlane, C., Hallgren, M. and McGorry, P.D. (1999). Preventative mental health care: accessing the target population. *Australian & New Zealand Journal of Psychiatry*. 33(6):912-7.

9. Charnock, D. and Shepperd, S., (1999). DISCERN on the Internet. Quality Criteria for Online consumer health information on treatment choices. *He@lth Information on the Internet*. 6 February

10. Lissman, T.L. and Boehnlein, J.K. (2001). A critical review of Internet information about depression. *Psychiatric Services*. 52(8):1046-1050.

11. Belcher, J.V.R. and Holdcraft, C. (2001). Web-based information for depression: Helpful or hazardous? *Journal of the American Psychiatric Nurses Association*. 7(3): 61-66

12. Griffiths, K.M and Christensen, H. (2000). Quality of web based information on treatment of depression: cross sectional survey. *British Medical Journal*, 321 (7275) Dec: 1511-1515.

13. Eysenbach, G., Powell, J., Kuss, O and Sa, E. (2002). Empirical Studies Assessing the Quality of Health Information for Consumers on the World Wide Web. *Journal of the American Medical Association*, 287: 2691-2700.

14. Sullivan, D. (2001) The Search Engine Report [Online] Available at: <http://www.searchenginewatch.com/reports/sizes.html>

15. Hawking, D., Craswell, N., Bailey, P and Griffiths, K. (2000). Measuring search engine quality. *Information Retrieval*, 2000. In Press. Available at: <http://citeseer.nj.nec.com/hawking01measuring.html>

16. California State University, Chico 2002, *Psychological Counseling and Wellness Center*, [Online] Available at: <http://www.csuchico.edu/cnts/links.html>

17. Survivors on the Net-Australia 2002, *Survivors Links*, [Online] Available at: <http://www.survivors.org.au/sl.htm>

0 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/proceeding-paper/cyber-psychiatry-review-internet-self/31993](http://www.igi-global.com/proceeding-paper/cyber-psychiatry-review-internet-self/31993)

## Related Content

---

### Social Issues in IT Project Teams

Awie C. Leonard and D. H. Van Zyl (2018). *Encyclopedia of Information Science and Technology, Fourth Edition* (pp. 777-787).

[www.irma-international.org/chapter/social-issues-in-it-project-teams/183789](http://www.irma-international.org/chapter/social-issues-in-it-project-teams/183789)

### Securing Stored Biometric Template Using Cryptographic Algorithm

Manmohan Lakhera and Manmohan Singh Rauthan (2018). *International Journal of Rough Sets and Data Analysis* (pp. 48-60).

[www.irma-international.org/article/securing-stored-biometric-template-using-cryptographic-algorithm/214968](http://www.irma-international.org/article/securing-stored-biometric-template-using-cryptographic-algorithm/214968)

### Machine Learning

Petr Berka (2015). *Encyclopedia of Information Science and Technology, Third Edition* (pp. 205-214).

[www.irma-international.org/chapter/machine-learning/112329](http://www.irma-international.org/chapter/machine-learning/112329)

### Challenges in the Digital Transformation Processes in Higher Education Institutions and Universities

Marco A. Corala and Augusto E. Bernuy (2022). *International Journal of Information Technologies and Systems Approach* (pp. 1-14).

[www.irma-international.org/article/challenges-in-the-digital-transformation-processes-in-higher-education-institutions-and-universities/290002](http://www.irma-international.org/article/challenges-in-the-digital-transformation-processes-in-higher-education-institutions-and-universities/290002)

### Microblog Emotion Analysis Using Improved DBN Under Spark Platform

Wanjun Chang, Yangbo Li and Qidong Du (2023). *International Journal of Information Technologies and Systems Approach* (pp. 1-16).

[www.irma-international.org/article/microblog-emotion-analysis-using-improved-dbn-under-spark-platform/318141](http://www.irma-international.org/article/microblog-emotion-analysis-using-improved-dbn-under-spark-platform/318141)