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Abstract

The aim of this research study is to evaluate the availability and classification of the types of currently available Internet self-help for depression. 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. In Australia, depression is the top-ranked cause of nonfatal disability. Over 27% of young adults have a current mental disorder, with depression being the most prevalent (10.8%). Though there are Internet-based self-help programs, evidence-based interactive programs developed specifically for young people, are not yet available. Recommendations are also made for further research.

Keywords

Self-Help, Internet Interventions, Depression

INTRODUCTION

The Internet is growing as an influential source of knowledge and information. The number of people using the Internet in 1995 was 2.3 million. In 1998, it had grown to 300 million, with an exponential growth pattern (Lawrence, 2000). Internet users look for more information on depression than they do for cancer or heart disease (Taylor, 1999). It has been found that only four in ten people with diagnosable behaviour or mental disorders ever seek help from a health professional (Kessler, et al., 1994). Internet-based intervention has been suggested to be on the increase as a technological innovation (Kavanagh and Meuser, 2001).

Globally, depression is the third major cause of disability, following cancer and heart disease (Murray and Lopez, 1996). It was found to be the top-ranking cause of non-fatal disease burden in Australia, causing 8% of the total years lost due to disability in 1996. Mental disorders overall were responsible for nearly 30% of the non-fatal disease burden, accounting for 3.7% of the total burden (Mathers, et al., 2000). 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 disease (Murray and Lopez, 1996).

Depression is a major health issue in young people. The latest Australian Census of Population and Housing mental health and well-being profile (Australian Bureau of Statistics, 1997, 1998) shows that the prevalence of mental disorder in the overall Australian population is highest (27%) in young adults aged 18-24 years. Australian youth have one of the highest suicide rates in the world. There are over 3.5 million (3,636,900) 12-25 year-olds in Australia, which is over one-fifth (21%) of all Australians.

The prevalence of depression in the young adult (20-24 year old) population is approximately 10%, with depressive symptoms reported in 15-40% (Australian Bureau of Statistics, 1998).

OVERVIEW OF CONSEQUENCES

Recent community services have confirmed that the vast majority of young people are unlikely to access services and get help from a counselor, doctor or other professional service. Australian National probability sample surveys (Andrews et al., 2001) found that only 37% of people with current mental disorders had sought help through consultation. Similarly, it has been reported that only half of the subjects with panic disorder seek help for their attacks (Katerndahl, 1996). Long delays, such as one a half years before seeking effective help are associated with poorer outcomes. Earlier intervention may enhance treatment outcomes.

Specialist programs targeting this specific age group are needed. This is supported by Birleson, et al., (2001), who suggests different programs for 0-17 year-olds and 18-25 year olds in order to be able to better assist them.

OBJECTIVES

The aim of this paper is to prepare a web services review of what is available for young people suffering from depression or related problems who may be seeking help or considering doing so. Of particular interest is the availability of interactive and evidence based self-help sites. 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 (Charnock, D. and Shepperd, S., 1999; Lissman, T.L. and Boehnlein, J.K., 2001; Belcher, J.V.R. and Holdcraft, C., 2001; Griffiths, K.M and Christensen, H., 2000; Eysenbach, G., Powell, J., Kuss, O and Sa, E., 2002).

Depending on the availability and types of self-help sites available, this study will ideally serve as a basis for further studies in the quality of self-help sites in depression as opposed to general information sites. The young adult age group (18-24 year-olds) was chosen as they are a high risk group for depression.

RESEARCH METHODS

Google was chosen as the main search engine as it is the most comprehensive (Sullivan, 2001) and ranked about equal to the top in quality (Hawking, et al., 2000). The search criteria by Culjak (2003) was "(self-help website) and (depression or psychological)" in the Google Internet Search Engine. They, as do the authors of this work, considered "depression" on its own being too broad for evaluating self-help websites. To ensure consistency between the two studies, the authors also used the same search criteria and search engine. The 2002 study yielded approximately 6,530 results, and this 2005 study yielded approximately 235,000 results. To ensure a most comprehensive study and again to ensure consistency, the top-ranked 150 sites were explored. Griffiths and Christensen (2002) and Spink (2005) report that few people search further than the first 10 links. Over 150 sites were searched in order to obtain the target 150 original, relevant and active sites (references available upon request). Where the search led to more than one occurrence of the site, all duplicate sites were replaced with the next in line until 150 original sites were obtained.

In the 2002 study, sites that required registration or payment prior to access were excluded in the final 150 most common hits, as registration or payment would be seen as a possible deterrent to web surfers of low mood. The same criteria was to be applied with this study, however the researchers found that no sites in the first 150 required registration or payment prior to access. On further investigation of an additional 30 sites, there was still no registration or payment required. The only indications of payment in the 180 sites (150 original + 30 additional sites) occurred when visitors were offered opportunities to purchase books, subscriptions, services, etc, external to the site.

Sites were classified according to their primary focus and how helpful they were for young people who might search the web when in need of immediate help for depression. In order to classify the types of self-help sites available, an overall impression rank score (1-3) was devised as an estimate of the usefulness and availability of direct help information and resources.

The sites ranked with a score of 1 were the more 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.

Sites with an overall score of 2 were sites that mainly held textual information in the form of definitions and links to other sites. Though useful, these were sites mainly consisting of links to other sites rather than those offering any benefits of their own; sites which did not add much to the existing resources available. Though most sites had a combination of features, rank 2 sites did not have as their primary purpose a direct link to advice, referral, screening or treatment. They were mainly informative sites and in some cases, were overwhelming in terms of information overload.

An overall impression ranking score of 3 was given to sites that seemed less useful both in terms of information and practical advice. A score of 3 also included sites that upon first impression seemed questionable in intent; this incorporated those sites that although may be of some use, seem to have a degree of author self-interest. This classification scale was also given to sites which were primarily an advertisement for a drug company or product rather than prioritizing the potential patient before prioritizing profit.

The characteristics that were considered important to explore in terms of the classification of self-help websites for depression and related issues were as follows.

- The main purpose of the site:-
    - Information – whether the main purpose of the site was to give information about the conditions or symptoms and links to further resources
    - Advice – refers to whether the web site was primarily focused on giving direct advice
    - Referrals – to practitioners or professional bodies for help (Griffiths and Christensen, 2000)
    - Treatment – any suggested modes
    - Definitions – of depression or related issues and conditions
    - Screening – in the form of a questionnaire that would help identify individuals suffering from or at risk of depression
- Target audience - Age groups were broken into those of different needs:-
    - General
    - Adolescence (~13-17) – approximately school age
    - Young Adults (~18-24) – approximately University age
    - Adults (25+)
    - Elderly
    - Professionals – 3 sites were mainly for professionals, rather than the general public.
- Interactive – engaging the user. This type of website could feature a screening questionnaire or a discussion group for example.
- Evidence-Based – links to journals, journals databases or well-known medical bodies
- Costs involved - for access to the site or for treatment
- Professional affiliation (Silbergm et al., 1997)
- Drug Company Involvement or Sponsorship (Griffiths and Christensen, 2000) - characteristics that could potentially bias the site in terms of a vested interest.

The authors held several workshops amongst them to confirm and solidify the criteria to be used in the collection of data on each site visited. The authors were able to ensure consistency in the selection criteria used for the data collection between the two studies as one of the authors had been involved in both studies. At the conclusion of the data collection, to ensure consistency, a further cross comparison was carried out with authors assessing randomly selected sites which had originally been assessed by other authors.

RESULTS

This 2005 study found that, as in 2002, highly reliable and directly helpful Internet self-help resources were not instantly accessible, nor readily available. Apart from the exceptional sites, which were rarely 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 1. They were broken down by the number of sites with these characteristics as their main, or one of their main intentions.

Main Intention	2002 Study Primary Purpose n/150 (%)	2005 Study Primary Purpose n/150 (%)	Growth (+ / - %)	2002 Study One of the main purposes n/150 (%)	2005 Study One of the main purposes n/150 (%)	Growth (+ / - %)
Information	145 (96.5%)	132 (88.0%)	-8.5%	149 (99.3%)	143 (95.3%)	-4%
Advice	2 (1.3%)	5 (3.3%)	+2%	47 (31.3%)	55 (36.7%)	+5.4%
Referrals	1 (0.6%)	0	-0.6%	19 (12.6%)	24 (16.0%)	+3.4%
Treatment	0	3 (2.0%)	+2%	2 (1.3%)	21 (14.0%)	+12.7%
Definitions	1 (0.6%)	8 (5.3%)	+4.7%	35 (23.3%)	23 (15.3%)	-8%
Screening	1 (0.6%)	2 (1.3%)	+0.7%	38 (25.3%)	22 (14.7%)	-10.6%

Table 1: Comparison of Main Purpose Categories of Self-Help Websites Surveyed – 2002 and 2005

Most sites offered general information and advice (please refer to Table 1), with every 4 or 5 sites having reasonably accessible definitions and screening tools. In both the 2002 and 2005 studies most sites were targeted at the general population with about 12% (2002) and 17% (2005) focusing (to a reasonable degree) on young adults (Table 2). Also notable over the period was the increase in sites targeted at adults, rather than young adults, from 3% in 2002 to 9% in 2005 (Table 2). An important factor noted when exploring the sites was the target age group. The results are shown in Table 2.

Target Audience	2002 Study n (%)	2005 Study n (%)	Growth (+ / - %)
General	132 (88%)	111 (74.0%)	-14%
Children (~1-12)	6 (4%)	1 (0.7%)	-3.3%
Adolescence (~13-20)	10 (6.6%)	10 (6.7%)	+0.1%
Young Adults (~21-24)	19 (12.6%)	26 (17.3%)	+4.7%
Adults (25+)	4 (2.6%)	13 (8.7%)	+6.1%
Elderly	0	1 (0.7%)	+0.7%

Table 2 : Comparison Self-help website target population groups by age – 2002 and 2005

In 2002 two out of five websites showed some level of interactivity (Table 4), though this was limited to a chat room, test or quiz in most cases. By 2005, only one in four sites showed a level of interactivity. A proportion of the sites that were searched (11% in 2002 and 50% in 2005) were judged as evidence based as they had links to journals, journals databases or well-known medical bodies. No sites, in either study, however, showed any official endorsement or recognizable quality standard by being linked to a web – trust assessment body, like DISCERN for instance (Charnock, D. and Shepperd, S., 1999).

The researcher classified the sites (see Table 3) according to their level of interactivity, their evidence based capacity, involvement with professional bodies or drug companies and the costs for access and treatment.

Other Features of Interest	2002 Study n (%)	2005 Study n (%)	Growth (+ / - %)
Interactive	61 (40.6%)	36 (24.0%)	-16.6%
Evidence-Based	17 (11.3%)	60 (50.7%)	+39.4%
Professional Affiliation	71 (47.3%)	76 (50.6%)	+3.3%
Drug Company Involvement or Sponsorship	16 (10.6%)	16 (10.7%)	+0.1%
Cost for Access	2 (1.3%)	1 (0.7%)	-0.6%
Cost for Treatment	3 (2%)	7 (4.7%)	+2.7%

Table 3 : Comparison of Classification of issues of importance for the potential web searcher

Table 4 illustrates how available self-help sites were for obtaining direct help and constructive advice on depression without having to navigate a multitude of links. Thus, although there are Internet-based self-help programs available, most sites are information based and do not readily supply evidence-based interactive programs specifically for the target group in question.

Overall Score	2002 Study n (%)	2005 Study n (%)	Growth (+ / - %)
1 - Direct help/advice	22 (14.6%)	25 (16.7%)	+2.1%
2 – Information based	80 (53.3%)	91 (60.7%)	+7.4%
3 - Irrelevant, or of relatively low credibility	48 (32%)	34 (22.7%)	-9.3%

Table 4 : Comparison of Overall Classification Rank of Self-Help Depression Sites

Sites awarded a Level 1 Classification Rank were relatively rare, especially on later hits, which confirmed that the sample of 150 sites was adequate to evaluate availability and classification. It typically includes a combination of screening, referrals information links and definitions. In both the 2002 study and the 2005 study, most sites (Table 4) held a lot of basic, low-level, repetitive textual information, definitions, links to many other sites and were classified in the Level 2 category. However, there was a trend towards increased usefulness in the intervening three years, the Level 1 and Level 2 numbers increasing at the expense of the number falling into the Level 3 Category.

In both the 2002 and 2005 studies there were a high proportion of Level 3 sites that may have had a link to a questionnaire, but the site itself did not feature this directly; and it would take relatively careful searching to find and access such information. This category included a lot of Psychologists' sites – some which appeared quite low in value on first impression. Duplicates, irrelevant sites and dead links were excluded.

DISCUSSION

This study found that highly reliable and directly helpful Internet self-help resources were not instantly accessible, nor readily available. This situation reflects very little change from the 2002 study. Apart from a few exceptional sites, a large proportion had low credibility and usefulness. The number of sites available has grown from 2002 to 2005 and there is some increase in the value to users in terms of the main purpose categories defined, particularly the percentage of sites that deal with treatment. There has also been a slight increase in the focus on young adults and other adults, perhaps representing an acceptance in the community that these age groups are most at risk. The reason for a relative decline in websites offering an interactive experience is not clear. The rise in the percentage of evidence-based sites seems to be linked to an increase in site-specificity, that is, some sites deal specifically with post-natal depression, others with cancer-related depression, a finding not observed in the 2002 study. Overall, the researchers found a trend towards more sites in general, more focused sites and some increase in value of sites, but usability remains a significant issue.

To make facilitatory websites more available, helpful sites should use common keywords in prominent places so that articles are easily retrievable. They should also contribute qualitative information rather than links, which are overwhelming in number and lead to repeatedly retrieving the same sites.

CONCLUSION

Depression is a significant health issue in young people and a major cause of social disability. The Internet is growing as an influential source of knowledge and information, and a lot of people seek health information from the Internet. This review of the researchers' search results of 150 self-help websites on depression and related issues revealed that there has been a significant growth in the number of self help sites and that this growth is providing newer areas of specialisation and potential patient consultation. Though in the initial study there were a lot of Internet Self-help sites available, the type of sites now available are providing more than a primarily information-base, and are moving towards a rather more direct source of psychological help or advice. As many people who need professional help for mental disorders are not seeking help from a health care professional, self-help sites are a way for them to obtain help prior to primary care. Though there are Internet-based self-help programs available, specialist evidence-based interactive programs developed specifically for young people, especially at school age, are not yet available. Further research and development of online resources is required to fulfill this need. However, there appears to be a growth in the number of sites for young adults – and primarily via university counseling sites.

It must be kept in mind when searching that even the top ranking websites need to be carefully considered. This study found that highly reliable and directly helpful Internet self-help resources were not instantly accessible, nor readily available. Apart from the exceptional sites, which were rarely available, a large proportion of the information is either basic, low-level, repetitive or self-serving, as opposed to valuable and credible Internet resources. This makes it difficult for young people to have reasonably immediate access to many directly facilitative sites for help and advice without searching to a great extent. This might be quite an issue for a young person who is feeling depressed, emotional, pressured, fatigued and vulnerable. There needs to be more research and development of specialist website programs which are preferably interactive and definitely evidence-based, targeted specifically to the needs of these young people.

FURTHER RESEARCH

This study has laid the basis for further research into the growth of self help website for those suffering from depression and potentially determines projections that may be utilized to determine the validity and possible categorisation of self help sites. In addition further research needs to be done into the potential use and effectiveness of self-help websites for young people suffering from depression in this particular age group of 20-24 year-olds, as well as for adolescents. There needs to be more research and development of specialist website programs which are preferably interactive and definitely evidence-based, targeted specifically to the needs of these young people.

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