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1. Background

Mental Health Research UK commissioned us to develop "Managing Your Mood Online" (MYMO), an evidence-based online resource to improve depression literacy and management for Nottingham-based university students. Several research projects were conducted to influence MYMO's content:

Interviews with 37 students revealed their uncertainty in assessing the importance of symptoms of mental distress. Some students described unawareness about how GPs, counsellors and tutors could help. Students studying specific degrees (e.g. medicine) may have better mental health literacy.

An **online survey** with 758 students found a third (N=276) displayed elevated depressive and/or anxiety symptomology, of which almost two-thirds (60.9%) had not sought professional help. Elevated symptomology was associated with lower maternal education and studying Arts & Humanities degrees.

A **systematic review and meta-analysis** of 17 student-only trials of computer and website-based interventions for common mental health problems found support for their use in improving depression, anxiety and stress outcomes, when compared to no-treatment controls¹. This included three trials of *MoodGym*.

A **vignette-based study** with 483 students found males and those studying non-healthcare/psychology degrees had greater depression-related stigma, lower perceived confidence and poorer quality mental health first aid skills to help a friend with depression. These students may be less knowledgeable about depression and less able to support their peers' mental health needs.

Literature review explored mental health help-seeking theory and mental health literacy interventions. The four-stage process model of help-seeking² was used to guide website development and content. The Cycle of Avoidance non-help-seeking model³ was applied to content improving students' appraisal of symptoms, and cognitive learning theory⁴ was used to model positive experiences of depression, help-seeking and self-management.

2. Development

Findings were used to develop the preliminary website using a website-building tool ('Weebly'):

- MYMO consisted of 67 webpages in 10 sections: these sections included general information about depression, guidance on understanding symptoms and when to seek help, available professional help, self-help, and how to support a friend.
- Content was delivered through text, pictures and audio (Figure 1).
- Quotes from the interview-based study were used to model and reiterate content to the target audience.



Figure 1. A screenshot of MYMO. The website's sections are presented on the left.

3. Usability evaluation

19 student participants volunteered to evaluate the preliminary website:

- They were provided with seven-day access to MYMO and completed an online evaluation survey which rated the website's usability and acceptability.
- Rating-scale and open-ended questions evaluated the website's content, presentation, navigation, perceived relevancy and usefulness to students. Questions were based on previous usability studies of internet-based interventions^{5, 6}.
- The majority of participants reported regular use of the internet for health-related purposes.

4. Usability feedback

Overall impression

- All participants felt the website was useful and liked using it:
- *Liked aspects:* signposted to relevant resources (N=7), provided enough information about depression (N=6), clarity of content and appropriate language (N=3), evidenced-based content (N=3), 'supporting a friend with depression' section (N=3).
 - *Disliked aspects:* text too lengthy on some webpages (N=4), frontpage presentation (N=4), colour scheme (N=5).
 - Many participants suggested improvements for website, e.g. adding specific information, changing the videos, altering presentation of some webpages.
 - All felt website's content was evidenced-based and was relevant to local university students.

Navigation issues

- Overall it was easy to navigate around website, minimal problems encountered, clearly defined sections, felt it was easy to find information and could remember how to navigate around it.
- Problems: interactive side-menu not functioning well; some hyperlinks broken or incorrect.
- Mobile/tablet-version of MYMO not as easy to navigate or access as laptop/computer-version.

Visual presentation

- Sample felt the website made a good first impression, liked the use of multimedia, could read the text/fonts and was clearly presented.
- Colour scheme a problem: may not be suitable for visually-impaired users and too "cold", colours not very appealing.

Language and content

- Website's content understandable and used familiar language which was sensitive and appropriate to the topic.
- Majority liked use of multimedia and aided understanding of text – videos may not have been recorded at high-enough quality.
- All felt there was no content which could negatively impact upon future student users.
- Five participants liked use of student quotes: could help users feel 'less isolated' about their depression.
- Fifteen felt text was too lengthy on some or all webpages:
 - Participants suggested text could be shortened, divided into sections or bullet-pointed to make more concise, or combine some webpages together.
- Fifteen participants stated the website did provide them with previously-unknown information relating to depression and its management.

5. Discussion

This usability evaluation forms the first part of an iterative process to redesign the intervention. The problems identified in evaluation and user suggestions will be used to change the website and improve its interactivity, and professional developers/designers will be hired to build the next version of MYMO.

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