Can People Read Self-Help Manuals for Depression? A Challenge for the Stepped Care Model and Book Prescription Schemes

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Abstract. Self help approaches are increasingly being used in healthcare settings through over 100 book prescription schemes in the UK. The use of Cognitive Behavioural Therapy (CBT) self-help materials for depression is advocated as part of stepped care service models. This study assesses how the reading ages of the most recommended self-help books for depression compare to British literacy levels. A cross sectional survey was carried out. The most recommended self-help books for depression were identified; seven CBT based self-help books were included in this study as well as a widely used booklet for depression. Readability scores and reading ages were calculated for a randomly generated selection representing 15% of each selected book using the Readability Studio® software to generate a wide range of key readability and comprehension scores. The reading ages of the selected books were between 12.6 and 15.4. Reading ease varied amongst the texts, and their complexity (percentage of unfamiliar words, range: 14.8% – 22.6%). A significant proportion of the UK population would struggle to use some of the current CBT-based self-help books recommended. For some patient groups, non text based self-help materials as well as shorter and more easily read written materials may be more appropriate. To our knowledge, this is the first study to address

this question. Publication of the reading ages of the recommended books within the book prescription schemes may allow for a more accurate match between the book and the reader.

Keywords: Self-help, cognitive behaviour therapy, stepped care, readability, survey, clinical practice, bibliotherapy, depression.

Introduction

Self-help approaches are increasingly being used in healthcare settings. In the UK book prescription schemes have increased in number with over 100 schemes nationally (Farrand, 2007); their popularity has been endorsed by the recommendation of the NICE guidelines for depression (NICE, 2004), which recommend the use of self-help materials in the early treatment of mild and moderate depression within the stepped care model. The introduction of these schemes generated interest amongst practitioners in Primary Care (News Roundup, 2003; Anderson et al., 2005).

Self-help approaches are also popular with the general public – who endorse self-help more positively than treatment with medication or psychotherapy, or indeed than seeing a health care practitioner (Jorm et al., 1997). Despite their popularity, no study to date has addressed the issue of readability of the recommended self-help books for depression.

Cognitive behaviour therapy (CBT) is ideal for the self-help approach as it uses a focused model of assessment and provides a clear structure to working that focuses on problems of relevance to the patient. For self-help materials to be effective, many of the same challenges that are present in therapy also need to be addressed. A key to engagement in treatment is being able to use the materials.

The reading age of a written document is defined as the "chronological age of a reader who could just understand a text". A reading age of 11 is the level used to define functional literacy in the UK. Currently, approximately 16% of the population of England are estimated to fall below this level of literacy (National Literacy Trust, 2007). A similar rate applies to other countries in the UK and also to other nations worldwide. An Organization for Economic Cooperation and Development (OECD) study of 16 to 65-year-olds found functional illiteracy rates of 20% in France and 25% in Eire (National Literacy Trust, 2000). The implications for these individuals are that they are unable to understand brochures, train timetables or road maps, or simple instructions for household appliances. To provide a yardstick against which to consider readability, the reading age of the *Financial Times* and *Guardian* lies between age 17–21 (sample checked by authors).

If inappropriately complex self-help materials are offered, it is likely there will be less improvement than may otherwise be possible, and also a low uptake and high dropout from using materials. Studies on the uptake of self-help materials in the US seem to indicate low dropout rates; however, most of this work has been done on populations recruited through media advertisements (Cuijpers, 1997) . In contrast, studies that have used British clinical populations have noted attrition rates approaching 50% (Whitfield, Williams and Shapiro, 2001).

Methods

Selection of self help books

CBT self-help is widely used by both accredited CBT practitioners and as part of book prescription schemes across the UK. The widely used self-help booklet for depression and

low mood from the Newcastle and Northumberland Trust (Newcastle, 2001) was included for comparison. The list of items identified (Table 1) for this study includes all books selected for use in depression in book prescription schemes in the Wales and the South West Peninsula (England) book prescription schemes (Farrand, 2005), and those identified by a previous study that surveyed all 500 accredited members of the British Association for Behavioural and Cognitive Psychotherapies regarding their attitudes towards and use of self-help materials. This population represents an expert body of accredited CBT practitioners, over 90% of whom recommend self-help materials (Keeley, Williams and Shapiro, 2002). One of the books recommended has been written by one of the authors of this paper.[1]

Readability assessment

The random number generator in Excel® was used to create a random selection of pages representing 15% of each book. These pages were then scanned into Microsoft Word® documents. Page headings and illustrations were removed from the final document as is recommended in studies on readability. Where there were tables of text, the sentences were kept in the same format. The scanned text was carefully proof-read and compared for accuracy against the original text.

The readability scores for each selection were then automatically calculated using the adult health care screen of the Readability Studio® software program (Oleander Solutions, 2007). This provides several scores of readability based on the level of difficulty of the text.

The concept of readability

Two ways in which the complexities of reading materials are measured are through the concepts of "readability" and "reading ages". Readability refers to all the factors that influence whether someone can read a text (Johnson and Johnson, 1987). As such, readability includes factors such as the size and the legibility of the print. It is also influenced by the complexity of the words and the sentences relative to the reading abilities of the reader. This is the part of readability that is most easily quantifiable. It is also the part that tends to be used to work out the "reading age" of a piece of text. A number of different formulae have been used to measure the reading age of written materials. Most formulae take into account the average length of the sentences and the number of syllables in the words incorporated within the text (see Table 2). In contrast, other formulae such as the "Dale-Chall" compare the words used against a standard word list known to be accessible to readers of an adult age. In this way, unusual words such as academic jargon are excluded and this results in a high reading age (Chall and Dale, 1995). Although there is a degree of variability between the different readability scores, the adult health care screen uses a combination of scores, from which a readability age mean is calculated.

Results

The readability statistics of the most frequently used and/or recommended self-help books for depression identified in this study are summarized in Table 1. The average reading age scores

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[1]Chris Williams is author of several self-help books and CD roms.

Table 1. CBT self-help books and readability scores

Book	Dale-Chall reading age score	% Dale-Chall unfamiliar words	SMOG reading age score	Gunning Fog reading age score	New Fog count reading age score	FORCAST reading age score	Fry reading age score	Raygor reading age score	Reading age (average)	Flesch reading ease score
Coping with Depression (Blackburn, 1987) (3)	12	18.3%	17	17	14	14	14	13	**14.4**	60
The Feeling Good Handbook (Burns, 1999) (1, 2, 3)	12	15.4%	15	15	12	14	13	13	**13.4**	66
Feeling Good: the new mood therapy (Burns, 1980) (3)	14	22.6%	17	13	14	15	16	15	**15.4**	52
Manage Your Mind (Butler and Hope, 1995) (3)	12	15.6%	16	16	12	14	13	13	**14**	64
Overcoming Depression (Gilbert, 1997) (1, 2, 3)	12	14.8%	16	16	14	14	13	13	**14**	64
Mind over Mood (Greenberger and Padesky, 1995) (1, 2, 3)	12	18%	17	17	14	15	15	15	**15**	57
Overcoming Depression and Low Mood: a five areas approach (Williams, 2006)∗ (1)	10	15.7%	15	14	11	14	12	12	**12.6**	68
Depression and Low Mood: a self help guide (Newcastle, 2001)	10	13.6%	15	15	13	14	12	13	**13.1**	68

1 – Recommended by book prescription schemes in England; 2 – Recommended by book prescription schemes in Wales; 3 – Recommended by CBT accredited therapists.

Table 2. Readability scores used in adult health care – interpretation of scores

Flesch reading ease score

This rates text on a 100-point scale and the higher the score the easier it is to understand the document. It is calculated using the formula $206.835 - (1.015 \times$ average sentence length$) - (84.6 \times$ average number of syllables per word$)$. A score of 60 to 70 represents an acceptable reading ease (the higher the score, the easier to read).

Dale-Chall score

The Dale-Chall score is generally used for primary and secondary age readers to help classify school text books and literature. This test is influenced by sentence length and unfamiliar words.

SMOG score

(colloquially referred to as Simple Measure of Gobbledygook) is generally appropriate for secondary age (4th grade to college level) readers. SMOG tests for 100% comprehension, whereas most formulas test for around 50%–75% comprehension. This test is influenced by sentence length and words consisting of three or more syllables.

Gunning Fog Index

The Gunning Fog Index is generally recommended for business publications and journals. This test is influenced by words containing three or more syllables.

New Fog Count

New Fog Count is a modified version of the Gunning Fog Index created for the US Navy and was designed for technical documents and manuals. This test is influenced by words containing three or more syllables.

FORCAST

FORCAST was devised for assessing US Army technical manuals and forms. This test is influenced by monosyllabic words. Note: FORCAST results may be slightly different from other tests because it does not take sentence length into account.

Fry graph

The Fry graph is designed for most text, including literature and technical documents. This test is influenced by sentence length and syllable count.

Raygor

The Raygor estimate graph is designed for most text, including literature and technical documents. This test is influenced by word and sentence length

are highlighted. The self-help materials achieved reading ages of between 12.6 and 15.4. The minimum Flesch Reading Ease score that could indicate "Plain English" is 60. Ideally, conversational English for consumers should score at least 80 or about 15 words per sentence (Flesch, 1979). The length of the materials varied from 124 pages (Blackburn, 1987), to over 700 (Burns, 1980) . Reading ease varied significantly amongst the texts, which had reading ease scores ranging from 52 to 68 (the higher the score, the greater the reading ease), and their complexity as indicated by the percentage of unfamiliar words, ranged from 14.8% to 22.6% in the Dale Chall scores (in the latter, over 1 in every 5 words being difficult to understand). The complexity found in the texts in terms of unfamiliar words or words longer than three syllables are also highlighted by the SMOG score, Gunning Fog and the New Gunning Fog score. The scores of the *Depression and Low Mood: self-help guide* (Newcastle, 2001) have been included in Table 1 to act as a comparison with the selected books.

Discussion

The readability score and reading ease are only two components affecting the usability of written materials. The understandability of a text is an interaction between the reader whose possible prior knowledge of aspects of the content and the text features would influence the ease with which they access the text, as well as the fixed aspects of the text itself. A criticism of readability tests is that they do not take into account a patient's prior experience and motivation. Readability is essentially text-related and does not take these factors into account (Mudd, 1987). Attempts to empirically correlate readability and understandability have yet to reach a consensus (Jones and Shoemaker, 1994). Additionally, there is variability in the reading age scores of the different readability scales; however, the adult health care screen battery of tests calculates a reading age mean for these.

We know that 16% of the population of England has a reading age below 11 (National Literacy Trust, 2007). The current study shows that the reading ages of the most frequently used and recommended self-help books for depression in the UK range from 12.6 and 15.4. This, compounded with the effects of depression on concentration and attention, will increase the difficulty of use of these materials for some patients. The abundance of unfamiliar words in some of the texts may be a contributing factor to non engagement with the materials on the part of the patient.

We have previously reported that the key "technical" language of traditional CBT as used in the Beck and colleagues' seminal manual *Cognitive Therapy for Depression* (Beck, Shaw, Rush et al., 1979) has a reading age of 17 or above (Williams and Garland, 2002). This is quite acceptable as a technical manual aimed at practitioners, but more simplified language would be more appropriate for patient groups.

During the course of an illness it is known that patients may become familiar with quite complex terminology (Meade and Smith, 1991), with the implication of the need of initially more simplified materials (in this context it may be that the self-help booklet may be appropriate as an introduction to CBT), or additional forms of support during the initial phase for the use of the materials. The social circumstances of patients specifically with regards to deprivation and poverty, and the impact that these may have on literacy levels, are also factors that professionals may need to consider when recommending self-help materials.

Those producing written self-help materials need to focus on ways of increasing their readability and understandability. To improve the ability of people to use the materials effectively, lessons need to be learned from adult learning models. The layout of materials is important. In the educational field, the term "information overload" is used to describe this unhelpful over-provision of text that actually prevents effective learning. Where text is densely packed, there is a danger of the user feeling overwhelmed. Guidelines are provided on aspects of presentation and style of materials for use in health care settings by the Kings Fund (Duman, 2003); the recommendations include the text to be broken up using illustrations (especially human faces), and the text personalized by the use of personal pronouns (me, you, your etc.) so that the reader individualizes and applies what they are learning to their own situation. The use of space for writing notes, and personalizing the materials also increases engagement and use. Practical issues such as the legibility of the print and line spacing should be addressed, a size 10–12 font size print is recommended, as is the use of black ink. Lower case script is read 10% faster than capitals. Bold text is better used for emphasis than italics or capitals. The best line length is 6–9 cm or 7–12 words for most efficient eye movement.

Table 3. What this paper adds

What is already known on this subject
- Depression is a common and disabling condition in the community
- CBT based self help materials are widely used and recommended as part of the stepped care models in depression as recommended by the NICE guidelines
- More than 100 book prescription schemes and specialist practitioners are recommending CBT self-help books in practice

What this study adds
- A survey of the 7 most widely used and recommended CBT self-help books for depression reveals that the readability scores of some of the recommended books may be beyond the range of their target group.
- The usability of some these materials will be hampered by the difficult accessibility of the texts for some patient groups. Readability and understandability need to be considered by those producing the materials and by the practitioners when giving them to their patients/clients.
- This will exclude a minimum of 16% of potential users.
- None of the recommended books to date have formally published their reading ages.

Crucially, providing support for the use of self-help for depression also significantly improves outcome (Gellatly et al., 2007). This may be partially explained by the fact that a supporter can help clarify, "translate" and encourage use. Despite the increase in the numbers of Book Prescription Schemes in the UK, little is known about how patients are using these and the forms of support that are being offered to them whilst using the materials.

Conclusions

It is clear that some of the reading ages of the self-help books most frequently used and recommended in healthcare settings in the UK are too high for many users. This does not detract from their content in other respects and it should not be forgotten that mental health professionals on a regular basis have recommended all of the materials included within this study. Practitioners may need to consider the level of support they provide to their patient/client in making use of these materials, and careful consideration should be taken to ensure that recommended materials will be usable and appropriate for the potential reader. This is to our knowledge the first study to address the question of readability of self-help materials recommended for use in depression. It may be that for some patient groups, non text-based self-help materials (such as audio or DVD) may be more appropriate.

Practice implications

We suggest that new self-help manuals begin to look at issues of usability and consider publishing their readability scores. Content should be tested in clinical practice and improved following feedback from both practitioners and patients/clients as suggested by the King's Fund guidance for producing patient education materials (Duman, 2003). Publication of the reading ages of the recommended books within the book prescription schemes may allow for a more accurate match between the book and the reader. For summary of study findings, see Table 3.

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