doi:10.1093/fampra/cmh708 Family Practice Advance Access originally published online on 14 February 2005

Efficacy of self-help manuals for anxiety disorders in primary care: a systematic review

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van Boeijen CA, van Balkom AJLM, van Oppen P, Blankenstein N, Cherpanath A and van Dyck R. Efficacy of self-help manuals for anxiety disorders in primary care: a systematic review. *Family Practice* 2005; **22:** 192–196.

Objective. The purpose of this study was to review effectiveness studies of self-help manuals for anxiety disorders in primary care.

Methods. A systematic review of six identified randomized controlled trials was carried out. In addition to outcome, the articles were coded on quality variables.

Results. The studies included differed with respect to the methodological quality, measurements used and size of the study population. Despite these differences, global results suggest that a self-help manual is an effective treatment possibility for primary care patients with anxiety disorders. The more time that was spent on guidance on the use of the self-help manual the greater was its effectiveness.

Conclusion. Treatment with a self-help manual for anxiety disorders may be effective in primary care. Data are lacking on the feasibility and cost-effectiveness of these manuals.

Keywords. Anxiety disorders, primary care, self-help manual, systematic review.

Introduction

GPs play an important role in the treatment of patients with anxiety disorders because these disorders are highly prevalent in general practice (10–20%),[1,2] and these patients cannot always be treated adequately in secondary care settings due to a limited capacity. As only a small number of patients with anxiety disorders undergo a spontaneous remission, an adequate treatment is necessary for most patients. The GP usually treats anxiety disorders with either benzodiazepines or antidepressants. Albeit effective, these drugs may have several disadvantages such as the occurrence of undesirable side effects, relapse after discontinuation and the risk of dependency. These disadvantages may lead to a poor patient compliance and a relatively high dropout rate. In contrast, the effectiveness and tolerability of cognitive–behavioural therapy (CBT) with a small tendency to relapse after treatment has been demonstrated repeatedly in both the short and long term. Unfortunately, it is difficult to deliver CBT adequately in primary care, because it requires extensive training of the therapist and should be delivered on a weekly basis in 10–20 sessions of 45–60 min. Attempts have been made to modify CBT into a more efficient, cost-effective and affordable treatment.[3] One of these modifications comprises the use of self-help manuals. Since such manuals are relatively easy to administer and do not require large time investments, they may be used in the treatment of anxiety disorders in primary care.

To date, several effectiveness studies have been published on this subject.[4,5] We want to review these studies systematically in terms of the effectiveness and the feasibility of treatment with self-help manuals for the anxiety disorders in primary care, to identify gaps in our knowledge and suggest future research.

Received 3 February 2004; Accepted 17 March 2004.
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Methods

Inclusion criteria

We included randomized controlled trials (RCTs) evaluating the effectiveness of self-help manuals in the treatment of anxiety disorders in primary care. Self-help manuals were defined as booklets or manuals aimed to overcome anxiety disorders and designed to be used by the patient himself or in conjunction with limited

therapist contact. We were especially interested in panic disorder (PD) and generalized anxiety disorder (GAD) because these disorders are highly prevalent in primary care. Studies with a mixed population, i.e. anxious and depressed patients, were excluded when data on the subsample with anxiety disorders were not provided separately. In an attempt to identify all studies, the quality of the study was not used as an exclusion criterion. An initial search of Pub Med, PsycLit/PsycInfo and the Cochrane database was carried out for the period 1963 to June 2003, using the keywords 'anxiety disorders', 'PD' or 'GAD' in combination with 'self-help', 'general practice', 'primary care' or 'family practice'. This search was extended by a manual search of the cross-references from the included papers.

Data extraction

CAvB and AJLMvB independently reviewed the studies selected by filling out a coding form. After the studies were coded twice, discrepancies in the two coding forms were resolved by referring to the data of the original article. This method yielded one coding form per article. The coding form consisted of the following items: year of publication, sample size, diagnosis, diagnostic criteria, duration of disorder, age, sex, intervention type, duration of intervention, presence and duration of follow-up and global results at post-test and at follow-up. Moreover, the methodological quality of the studies included was assessed with the Amsterdam–Maastricht consensus list, range 0–19 points.[6]

Analysis

In order to get an impression of the magnitude of the results obtained after treatment with a self-help manual, Cohen's *d* of the effect size was calculated on anxiety outcome measures. The effect size was calculated within interventions by subtracting post-test from pre-test scores and dividing the difference by the pooled SD.[7]

As follows below, it appeared that the studies included differed with respect to the methodological quality, the measurements used and the size of the study population. Therefore, we decided not to pool the results. Due to the small number of studies included, no formal statistical analyses were used, with the exception of some non-parametric correlations.

Results

The initial search yielded a total of 966 reference titles in Pub Med, 293 in PsycLit/PsycInfo and five in the Cochrane database. After screening the abstracts or full text of the articles found, four studies and one follow-up study were identified on the effectiveness of self-help manuals in the treatment of anxiety disorders in primary care. A manual search of the cross-references of the articles found yielded two other papers of possible relevance. After reading the full text, six studies and one follow-up study could be included in this review (see Table 1).

Table 2 shows scores on the methodological quality of the included studies measured with the Amsterdam–Maastricht consensus list. Due to the type of the intervention investigated, in none of the studies were the care provider and the patients blind. Moreover, in none of the studies were adverse effects provided. Therefore, the maximum quality score of the studies selected was 16. The quality of the studies ranged from moderate[8,9] to good.[10] Recency of the study correlated moderately with better quality (Spearman's rank correlation: 0.41; $P = 0.42$).

Characteristics and outcome of the included studies are shown in Table 3. As follows from Table 3, the six studies included differed on the diagnosis included, the diagnostic criteria used, the duration of the intervention (range 1–3 months), presence of a follow-up period (in three of six studies) and duration of the follow-up (range 3 months–3 years). Overall, the study sample was rather small and the dropout rate relatively high. In four studies, the self-help manual was compared with a waiting list or care as usual as control conditions.[8,11–14] Two studies did not find significant differences between the manual versus a waiting list[11] and the manual versus

TABLE 1 *Reasons why papers were not included*

Database	PubMed (*n*)	PsycLit/Info (*n*)	Cochrane (*n*)
Initial search	966	293	5
Excluded on abstract/full text	963	291	5
No anxiety disorders	299	38	0
Anxiety disorders mixed with other diagnosis	44	2	0
No primary care	36	21	0
No self-help manual (videotape/computer)	10	9	0
Review/overview	166	34	1
Treatment outcome study	146	64	3
Epidemiology/prevalence study	33	9	0
Diagnostic study	158	57	0
Prediction outcome study	21	14	0
Medical utilization in anxiety disorders	14	6	0
Other (mainly letters/editorials/book)	36	37	1
Included studies and follow-up study	3[a]	2[b]	0

[a] Sorby (1991); Sharp (2000); Kupshik (1999).
[b] White (1995, 1998).
Handsearch reference Milne (1988); Donnan (1990).

TABLE 2 *Validity scores of included studies by two independent reviewers measured with the Amsterdam–Maastricht consensus list*

	Milne and Covitz (1988)	Donnan *et al.* (1990)	Sorby *et al.* (1991)	White (1995)	Kupshik and Fisher (1999)	Sharp *et al.* (2000)
Validity criteria						
Adequate randomization procedure	+	+	+	+	+	+
Concealed random allocation of treatments	0	−	−	0	−	+
Baseline similarity tested	−	+	+	+	+	+
Control for co-interventions in design	+	−	−	−	−	+
Check for adherence to interventions	+	−	+	+	+	+
Valid outcome measure	+	+	+	+	+	+
Relevant outcome measure	+	+	+	+	+	+
Outcome assessor blinded	0	−	−	−	−	+
Care provider blinded	−	−	−	−	−	−
Patient blinded	−	−	−	−	−	−
Withdrawals and dropouts (proportion; inequality between groups; reasons for withdrawal/dropout reported)	+	−	+	+	−	+
Identical timing of outcome assessment for all intervention groups	+	+	+	+	+	+
Intention-to-treat analysis	−	−	−	−	−	+
Descriptive criteria						
Specification of eligibility criteria	−	−	+	+	0	+
Description of the interventions	+	+	+	+	−	+
Follow-up	+	−	−	+	+	−
Adverse effects	−	−	−	−	−	−
Statistical criteria						
Sample size: to be presented at randomization and outcome	+	+	+	+	+	+
Presentations of point estimates and distribution measures	+	+	+	+	−	+
Total score (range 0–19)	11	8	11	12	8	15

+ Present, − absent, 0 not provided.

care as usual, respectively.[8] In contrast, the other two studies showed superior outcome of the self-help manual. One negative study used a very small sample (each condition included <10 patients),[11] while the other negative study had only a moderate quality score.[8]

Two studies compared the self-help manual with other interventions, characterized by increasing guidance or hours of contact.[9,10] The global results suggest that the more contact the patient received the greater was the effect of the manual (see later). It is noteworthy that a self-help manual was even effective in a sample of patients with a duration of anxiety complaints of >1 year. The small number of follow-up data suggests that the treatment gains of self-help manuals are sustained until after 12 months and 3 years.[13,14]

In three studies, effect sizes could be calculated on anxiety measures. These are shown in Table 4. The Cohen's *d* of effect sizes associated with treatment with a manual only varied from 0.38 to 1.74. This large difference is due to the type of measurement used and the duration of the study (1 month seems rather a short time to overcome anxiety symptoms). In corroboration with global outcome, the magnitude of the effect sizes was critically dependent of the additional time spent on guidance on the use of the manual (Spearman's rank correlation: 0.85; $P = 0.004$).

Discussion

We can conclude that treatment with a self-help manual for anxiety disorders in primary care may be effective. The magnitude of Cohen's *d* of the effect size for this treatment varied from moderate to large. Moreover, it was found that the more time that was spent on guidance on the use of the self-help manual the greater was its effectiveness. Even patients with longstanding anxiety symptoms may profit from treatment with a self-help manual. None of the studies reported on the feasibility in primary care practice.

The conclusions of the present study are limited, because we could only include six studies on this subject. These studies differed with respect to quality, measurements and study size, and are therefore difficult to compare. Although some of the studies were only of moderate quality, validated questionnaires were used, making comparison possible with the literature. In a recent meta-analysis, CBT provided in secondary care

TABLE 3 *Characteristics and outcome of the included studies*

Authors (year of publication)	Study population (*n*)	Diagnosis	Diagnostic criteria	Mean duration of anxiety problem	Drop outs	Age (years)	Sex	Intervention and no. of patients per intervention (*n*)	Duration of intervention	Global result at post-test	Duration of follow-up	Global result at follow-up
Milne and Covitz (1988)	22	Anxiety	–	–	18%, 4/22, 1 month	Mean 53, range 20–67	13F, 5M	(i) Manual (7); (ii) a health education leaflet (5); (iii) waiting list control group (6)	1 month	1 = 2 =3	6 months	1 = 2 = 3
Donnan *et al*. (1990)	103	Anxiety	–	–	38%, 39/103, 3 months	Median 42, range 17–77	75F, 26M	(i) Manual (51); (ii) care as usual (52)	3 months	1 = 2	–	–
Sorby *et al*. (1991)	64	PD/G AD/phobic avoidance	DSM III	>1 months 4.1%, 1–3 months 14.3%, 4–6 months 6.1%, >6 months 75.5%	23%, 15/64, 8 weeks	Range >18	52F, 12M	(i) Manual (30); (ii) care as usual (19)	2 months	1 > 2	–	–
White (1995)	97	Anxiety disorder	DSMIII R	(i) 3.2 years; (ii) 2.8 years; (iii) 2.4 years	0%, 0/97, 3 months	Mean 38.3, range 18–65	36F, 26M	(i) Manual (21); (ii) advice only (20); (iii) waiting list (21) and after 3 months all CBT	3 months	1 > 2 = 3	3 years*	1 > 2 = 3
Kupshik and Fisher (1999)	102	Anxiety	Zung Anxiety Scale	36,4 months, (range 1 month to 10 years)	22%, 22/102, 1.5 months	Mean 38.8	43F, 37M	(i) Manual and minimal contact (29); (ii) manual and medium contact (23); (iii) manual and maximum contact (28)	1.5 months	1 = 2, 2 = 3	3 months	1 = 2, 2 = 3
Sharp *et al*. (2000)	104	PD ± A	DSM III-R	(i) 26.8 months; (ii) 44.3 months; (iii) 38.2 months	24%, 25/104, 3 months	Mean 38.3, range 18–70	–	(i) Manual (29); (ii) manual and 2 h CBT(31); (iii) manual and 6 h CBT (31)	3 months	1 < 2 = 3	–	–

PD = panic disorder; A = agoraphobia; GAD = generalized anxiety disorder; DSM = Diagnostic and Statistical Manual of Mental Disorders; F = female; M = male; CBT = cognitive–behavioural therapy; –, unknown or not present; * reference White (1998).

TABLE 4 *Effect sizes of the interventions of the included studies*

Authors (year of publication)	Interventions and no. of patients per intervention (*n*)	Outcome measures	
Milne and Covitz (1988)		STAI (state)	STAI (trait)
	(i) Manual (7)	0.38	0.03
	(ii) Health education leaflet (5)	0.13	0.15
	(iii) WL (6)	−0.07	0.15
White (1995)		SCL-90 total	HADS anxiety
	(i) Manual (21)	1.08	1.74
	(ii) Advice only (20)	0.05	0.56
	(iii) WL (21)	0.24	0.26
Sharp *et al.* (2000)		GSS	
	(i) Manual (29)	0.53	
	(ii) Manual and 2 h CBT (31)	1.29	
	(iii) Manual and 6 h CBT (31)	1.92	

SCL-90 = symptom checklist 90; HADS = hospital anxiety and depression scale; STAI = state–trait anxiety inventory; GSS = global symptom severity; CBT = cognitive–behavioural therapy; WL = waiting list.

for panic and agoraphobia was associated with an effect size of 1.25 and 0.91, respectively.[14] Most effect sizes in this review are somewhat smaller, corroborating the observation that the more time that is spent on guidance on using the manual, the better the outcome is.

Future research should focus on the treatment of well-defined anxiety disorders in general practice, the feasibility of using a (guided) self-help manual in this setting and the cost-effectiveness especially compared with second line CBT.

General practice is an environment of limited resources which aims to provide the time and attention a patient needs, but not more. If spontaneous recovery does not occur in anxiety disorder patients in primary care, a minimal intervention in the form of a self-help treatment may be offered. The results of this study may fit into a stepped care approach and suggest that a (guided) self-help manual may be a first line treatment of anxiety problems in primary care.

Declaration

Funding: Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO) reg. number 0703/AGIKO/920-03-026.
Ethical approval: the Medical Ethics committee of the VU University Medical Centre ref. number 95/174.
Conflicts of interest: none.

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