



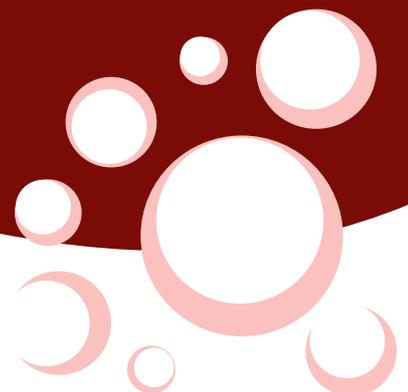
Psychotherapy and Counselling
Federation of Australia

A Resource for Counsellors and Psychotherapists Working with Clients Suffering from Anxiety

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Foreword

This document is a literature review of research prior to 2009 into the effectiveness of therapeutic approaches for anxiety, intended as a resource for counsellors and psychotherapists. It was written on behalf of the PACFA Research Committee. However, this does not imply that PACFA or its Member Associations endorses any of the particular treatment approaches described.

The PACFA Research Committee recognises that it is important to counsellors and psychotherapists that they have access to recent research evidence that demonstrates the effectiveness of different therapeutic approaches, to assist them in their practice. This document is one of a series of reviews that was commissioned by the PACFA Research Committee to support its Member Associations in their work.

The PACFA Research Committee endorses the American Psychological Association's definition of evidence-based practice as 'the integration of the best available research evidence with clinical expertise in the context of patient characteristics, culture and preferences', although we would prefer to use the word client or consumer rather than 'patient'.

The PACFA Research Committee recognises that there is overwhelming research evidence to indicate that, in general, counselling and psychotherapy are effective and that, furthermore, different methods and approaches show broadly equivalent effectiveness. The strength of evidence for effectiveness of any specific counselling and psychotherapy intervention or approach is a function of the number, independence and quality of available effectiveness studies, and the quality of these studies is a function of study design, measurements used and the ecological validity (i.e. its approximation to real life conditions) of the research.

The PACFA Research Committee acknowledges that an absence of evidence for a particular counselling or psychotherapy intervention does not mean that it is ineffective or inappropriate. Rather, the scientific evidence showing equivalence of effect for different counselling and psychotherapy interventions justifies a starting point assumption of effectiveness.

We recognise the need to improve the evidence-base for the effectiveness of various therapeutic approaches. The PACFA Research Committee is committed to supporting our Member Associations and Registrants to develop research protocols that will help the profession to build the evidence-base to support the known effectiveness of counselling and psychotherapy.

We hope that you will find this document useful and would welcome your feedback.

Dr Sally Hunter
Chair of the PACFA Research Committee, 2011

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1. Introduction

This literature review aims to inform clinicians about the existing evidence-base for the psychotherapeutic treatment of anxiety, focusing specifically on generalized anxiety disorders (GAD). It summarises evidence from systematic reviews and randomized controlled trials where available. The included literature was identified from PsycINFO and from previous guidelines about the treatment of GAD (Andrews et al., 2003; Anxiety Review Panel: Evans, Bradwejn, & Dunn, 2000; British Association for Pharmacology: Baldwin et al., 2005; Clinical Practice Guidelines, 2006; McIntosh et al., 2004; National Institute for Clinical Excellence (NICE), 2007). Table 1 gives an overview of the main meta-analyses of psychotherapeutic interventions for GAD and Table 2 lists existing guidelines. This literature review does not address the issue of therapy for other anxiety disorders, such as phobias or obsessive compulsive disorder.

2. Symptoms and diagnosis of Generalised Anxiety Disorder (GAD)

GAD is characterised by unfocused worry and anxiety that is not caused by or related to a specific recent event (American Psychiatric Association, 1994). The worry is not characterized by a particular fear but usually includes different and changing domains of worry (Roemer & Orsillo, 2005). A person suffering from GAD spends more than half of his or her time worrying and recognises that the worry is about minor things (Andrews et al., 2003). In the DSM-IV (American Psychiatric Association, 1994), the core symptom of GAD was defined as the presence of excessive and chronic worry with the main feature being a feeling of a 'lack of control' (Nutt, de Miguel, & Davies, 2008). The worry persists for six months or longer and is not restricted to particular circumstances. In order for a diagnosis to be made, the client must have three of the six somatic anxiety symptoms such as restlessness, fatigue, difficulty concentrating, irritability, muscle tension and sleep disturbances.

In the ICD-10 (World Health Organization, 1993), GAD is defined as a generalised and persistent state of free-floating anxiety over several months. Key symptoms are apprehension, motor tension and autonomic overactivity. The symptoms of GAD are similar to, and overlap with, those of other mental disorders. It has been shown that GAD is a significantly disabling disorder (Hunt, Issakidis, & Andrews, 2002; Hunt, Slade, Andrews, 2004) and is often misdiagnosed (Anxiety Review Panel, 2000). The identification of GAD can be difficult because clients suffering from GAD may report somatic symptoms or other mental disorders.

Furthermore, the key symptoms of worrying and tension also frequently occur in other anxiety disorders, depression, dysthymia, or avoidant personality disorder. Therefore, it is important to carefully assess and diagnose GAD (Durnham & Fisher, 2007). Despite the overlap with other mental disorders, it is an independent disorder with its own distinct symptoms (Brown, Barlow, & Liebowitz, 1994; Grant et al., 2005; Nutt et al., 2008). The symptoms of GAD can also be confused with withdrawal syndromes or somatic symptoms associated with the chronic use of drugs or hyperthyroidism (Andrews et al., 2003).

3. Prevalence

GAD is one of the more common anxiety disorders and is often present with other mental disorders such as other anxiety and depressive disorders (Grant et al., 2005; Hunt et al., 2002; Yonders, Warshaw, Massion, & Keller, 1996). The Australian National Survey of Mental Health and Well-Being (Hunt et al., 2002) reported prevalence rates of 3.6% over a period of 12 months. Comorbidity with other mental disorders such as affective, anxiety and personality disorders or substance use has been found in about 68% of clients (Hunt et al., 2002). In a large representative US American study with over 43,000 participants (Grant et al., 2005) a 12-month prevalence rate of 2.1% and a lifetime prevalence rate of 4.1% has been reported. GAD has been shown to be significantly related to being younger and middle aged, being separated or divorced, being unemployed (Hunt et al., 2002) or being female (Grant et al., 2005). GAD is twice as common in women as in men (Grant et al., 2005). A lifetime prevalence rate of 8.9% has been reported if diagnosed with the wider criteria of the ICD-10 (World Health Organization, 1993).

3.1 Onset

Many people suffering from GAD describe that they have felt anxious or worried for a long period of their life. GAD can develop in childhood but it has been suggested that it often develops in adolescence or young adulthood (Wittchen, Zhao, Kessler, & Eaton, 1994). The onset can be as early as 13 years if GAD develops as a primary disorder, but can also develop in a person's late twenties as a secondary disorder (Rogers et al., 1999). The average age of onset reported in different studies varies enormously from nine years to 33 years (Nutt et al., 2008).

3.2 Duration

GAD has been described as a chronic disorder due to the average length of each episode (Nutt et al., 2008; Yonkers et al., 1996) and the relatively high relapse rates (Yonkers, Dyck, Warshaw, & Keller, 2000). Grant et al. (2005) reported a median duration of 11 months for the longest episode in a representative US sample. Nearly 50% reported that they received specific treatment for their GAD.

In a five years longitudinal study (Yonkers et al., 2000) ($N = 167$), 38% of clients fully recovered, with a relapse rate of 27% during the three years follow up. Fisher and Durham (1999) ($N = 404$) found comparable recovery rates in a randomised controlled trial with 40% recovery after treatment. If clients have relationship problems and/or personality disorders, they have a reduced likelihood of remission (Yonkers et al., 2000).

4. Causes and risk factors

There is little known about the development of GAD (Andrews et al., 2003). Several theoretical models about the causes of GAD have been developed. Barlow (1988) believed that biological, psychological and environmental factors were important and hypothesised how, given biological and psychological vulnerabilities, negative life events could contribute to the development of anxieties. Another theory (Rapee, 1991) is based on information-processing styles where clients with GAD detect threatening information more easily than people without GAD. One four-part model of GAD (Ladouceur, Blais, Freeston, & Dugas, 1998; Dugas, Gagnon, Landouceur, & Freeston, 1998) suggests that clients with GAD have more intolerance of uncertainty, certain beliefs about worry, poorer problem orientation and greater cognitive avoidance. In a further theory, worry may have the purpose of avoiding emotionally distressing topics related to trauma, negative attachment experiences or interpersonal problems (Borkovec, Alcaine, & Behar, 2004).

5. Therapeutic interventions

A variety of therapeutic approaches have been used in relation to GAD, such as psychoanalytic therapy, brief psychodynamic therapy, client-centred therapy and cognitive behavioural therapy (CBT). Acceptance and mindfulness-based approaches have also become of interest for the treatment of anxiety disorders (Orsillo & Roemer, 2005). CBT has been the therapeutic approach for which most treatment outcome research has been conducted (Hunot, Churchill, Teixeira, & Silva de Lima, 2007; Rygh & Sanderson, 2004). Therefore, most of the evidence reported relates to CBT. Results of a Cochrane review (Hunot et al., 2007) demonstrated that if the results of different therapeutic approaches are taken together (eight studies), 46% of clients showed a clinical response after therapy compared to 14% in the treatment as usual or the no treatment (waiting list) group. In the meta-analysis by Fisher and Durham (1999) slightly less than 40% recovered after treatment (across different treatment approaches).

The following section aims to give an overview of empirical evidence for the effectiveness of psychotherapeutic and pharmacological treatments for GAD.

Table 1: Overview of meta-analysis of psychotherapeutic treatment of GAD

Study	Title	Approaches	No. of Studies	No. of Patients <i>N</i>	Outcome
Durham & Allen (1993)	Psychological treatment of generalised anxiety disorder. A review of clinical significance of results in outcome studies since 1980.	CT and BT	4	139	On average, less than half of the clients met the criteria for normal functioning by the end of treatment. This was maintained at follow up.
Durham et al. (2003)	Does cognitive-behavioural therapy influence the long-term outcome of generalized anxiety disorder?	CBT vs. medication, placebo, analytic psychotherapy	2	221	Fifty percent of participants were markedly improved of whom 30–40% were free of symptoms. Differences between treatment groups were non-significant.
Fisher, & Durham (1999)	Recovery rates in generalized anxiety disorders following psychological therapy: An analysis of clinically significant change in the STAI-T across outcome studies since 1990.	CBT, relaxation, BT, non-directive therapy, AP	6	404	A recovery rate of 40% was found for the whole sample. CBT and relaxation did relatively well with recovery rates of 50 – 60% at 6-month follow up. Non-directive therapies resulted in a 38% recovery rate. Individual BT and AP did relatively poorly with recovery rates of 11 and 4%, respectively at follow up.
Gould, Otto, Pollack, & Yap (1997)	Cognitive behavioural and pharmacological treatment of generalized anxiety disorder: A preliminary meta-analysis.	CBT and pharmacotherapy	35	4002	Effect size for CBT (ES = .70) was not statistically different from pharmacotherapy (ED = .60). CBT had greater effects on depression and was associated with clear maintenance of treatment gains.
Hunot et al. (2007)	Cochrane Review: Psychological therapies for generalised anxiety disorder.	CBT, PDT, supportive therapy	22	1060	CBT was more effective than treatment as usual and waiting list control at post treatment. The percentage of clients with a clinically significant change was not significantly different between CBT and supportive-humanistic therapies. Anxiety symptom mean score was significantly lower after CBT than after supportive therapies. Conclusion: CBT has shown to be effective short term. Only limited evidence about long term effects and comparison with other psychotherapeutic treatment approaches.
Mitte (2005)	Meta-analysis of cognitive-behavioural treatments for generalized anxiety disorder: A comparison with pharmacotherapy.	CBT vs. pharmacotherapy	65		CBT was more effective than control condition. Comparison CBT vs. pharmacotherapy: Results varied depending on the meta-analytic method used. If only direct comparison studies were included, no significant differences between CBT and pharmacotherapy were found.

CBT = Cognitive behavioural therapy, CT = Cognitive therapy, BT = Behavioural therapy, PDT = Psychodynamic therapy; AP = Analytic psychotherapy

Table 2: Overview of other guidelines for the treatment of GAD

Authors/Organisation	Title
Andrews, Creamer, Crino, Hunt, Lampe, & Page (2003)	The treatment of anxiety disorders. Clinical guides and patient manuals.
Anxiety Review Panel: Evans, Bradwejn, & Dunn (2000)	Guidelines for the Treatment of Anxiety Disorders in Primary Care.
Baldwin et al. (2005)	Evidence-based guidelines for the pharmacological treatment of anxiety disorders: Recommendations from the British Association for Pharmacology.
Clinical Practice Guidelines (2006)	Generalized Anxiety Disorder.
National Institute for Health and Clinical Excellence (2007)	Clinical guideline 22 (amended). Anxiety. Management of anxiety (panic disorder, with or without agoraphobia, and generalized anxiety disorder) in adults in primary, secondary, and community care.
McIntosh et al. (2004)	Clinical guidelines and evidence review for panic disorder and generalised anxiety disorder.

5.1 Cognitive Behavioural Therapy (CBT) and Cognitive Therapy (CT)

In CBT the focus is on the appraisal of threat and the reduction of muscle tension through relaxation. CBT makes use of anxiety management training, psychoeducation, exposure, relaxation, cognitive restructuring, problem solving and interpersonal skills training. The aim of therapy is to change a passive and worried reaction to a threat into a more active state, where the client has the feeling of having control over the worry.

It has been reported that CBT is an effective therapeutic approach for the treatment of GAD, with the majority of clients showing clinically significant improvement after therapy (DeRubeis & Crits-Christoph, 1998) and maintaining this improvement for at least a year after therapy (Borkovec, Newman, Lytle, & Pincus, 2002; Andrews et al., 2003). Fisher and Durham (1999) reported recovery rates at a six-month follow up of 50-60%. Borkovec et al. (2002) reported a clinically significant improvement with CBT for 57% of clients at a six-month follow up and for 38% at 24-month follow up. Durnham and Allen (1993) described how, on average, 57% of the clients who received CBT showed a clinically significant change.

On the basis of existing evidence it has been concluded that CBT is superior to no treatment (waiting list) (Borkovec & Ruscio, 2001; Hunot et al., 2007; Ladouceur et al., 2000; Mitte, 2005). In a Cochrane review (Hunot et al., 2007), CBT was more effective than treatment as usual and no treatment (waiting list). Gould, Otto, Pollack, and Yap (1997) also indicated that CBT was an effective treatment.

There is only limited research about the long-term effectiveness of CBT (Hunot et al., 2007). In a rare long-term follow up study, the majority of patients who had received CBT remained symptomatic after eight to fourteen years (Durham et al., 2003). This suggests that more long term follow up studies are needed to have more information about the long term effects of CBT.

5.2 Comparison of CBT and pharmacotherapy

Meta-analyses of CBT versus pharmacotherapy have suggested no difference in outcomes (Durham, Chambers, MacDonald, Power, & Major, 2003; Gould et al., 1997; Mitte, 2005). In the meta-analysis by Mitte (2005) the difference in effect size between the two treatments varied depending on the meta-analytic method used. There were no differences in efficacy when only studies that directly compared the two treatments were included in the meta-analysis. However, drop-out rates were significantly lower for CBT compared to pharmacotherapy which suggests higher tolerance of this treatment (Mitte, 2005).

5.3 Comparison of CBT with other psychotherapeutic approaches

There is only limited research about the effectiveness of CBT in comparison to other therapeutic approaches and available studies have produced mixed results. Durham et al. (1999) compared the effectiveness of CT, analytic psychotherapy and anxiety management and found that, at a one-year follow up, CT was significantly more effective than the other two treatments and that the majority of clients rated CT as helpful. In an earlier study by Durham et al. (1994) CT was significantly more effective than analytic psychotherapy at post-treatment and at a six-month follow up. Analytic psychotherapy resulted in a drop-out rate of 24% compared to 10% for CT.

In a Cochrane review (Hunot et al., 2007), different psychotherapeutic treatments for GAD were investigated and 22 studies ($N = 1060$) were included. Results of six studies that compared CBT and supportive therapies ($N = 332$), indicated that there was inconclusive evidence. CBT resulted in a higher but non-significant treatment effect compared with supportive therapies (42% showed clinically significant change after CBT compared with 28% after supportive therapy). At a six-month follow up ($N = 158$) response rates in both treatment groups had increased (54% showed clinically significant change after CBT compared with 41% after supportive therapy) and the difference in response rates between the two treatment groups stayed non-significant. However, there was a highly significant difference between the two treatment groups in reduction of anxiety symptom mean scores, in favour of CBT. Therefore, at post-treatment, there was a greater reduction of anxiety symptoms after CBT than with supportive therapy. This difference in reduction of anxiety symptoms between the two treatments was also noted at a six-month follow up ($N = 97$). One study reported anxiety symptoms at a twelve-month follow up for both treatment approaches ($N = 36$) and the results showed that the mean anxiety scores between CBT and supportive therapy were no longer significant.

Several guidelines (NICE, 2007; McIntosh et al., 2004; Anxiety Review Panel, 2000) have recommended CBT as treatment of choice for GAD. This is based on the relative lack of available evidence for other approaches, and does not imply the ineffectiveness of other approaches.

5.4 Acceptance and mindfulness-based approaches

Roemer and Orsillo (2005) developed an acceptance-based behaviour therapy for GAD that includes CBT techniques and acceptance-based interventions. The treatment consisted of 16 sessions and contained psycho-education (e.g., introducing a model of worry, discussing the function of emotions), experiential exercises, self-monitoring, relaxation techniques, and mindfulness practice. The

underlying model of experiencing the present (Roemer & Orsillo, 2005; Roemer & Orsillo, 2002), was explained to the client and then explored.

Evans et al. (2008) found that clients suffering from GAD ($N = 11$) showed significant reductions in worry or anxiety after treatment that assumed that worry may be associated with the avoidance of current unpleasant internal experiences or feelings e.g. mindfulness-based cognitive therapy. The results of an open trial (Roemer & Orsillo, 2007) indicated that at the end of therapy and at a three-month follow up, clients who have received acceptance-based behaviour therapy ($N = 16$) showed significant decrease in clinician-rated anxiety and depressive symptoms and increase in quality of life. Results of a randomized controlled trial (Roemer & Orsillo, 2005) ($N = 17$) showed that the treatment group had significantly better outcomes than the group with no treatment (waiting list) with large effect sizes and with 62% of clients meeting criteria for high end-state functioning after treatment. These results suggest that a mindfulness-based approach may be effective.

5.5 Pharmacological treatment

The most common pharmacological treatments offered for clients with GAD are azapirones, tricyclic antidepressants, benzodiazepines, and selective serotonin-norepinephrine reuptake inhibitors (Rygh & Sanderson, 2004).

Randomized placebo-controlled trials have found that some short-term pharmacological treatments were effective for the acute treatment of GAD (Baldwin & Polkinghorn, 2005; Mitte, Noack, Steil, and Hautzinger, 2005). In a randomized controlled trial (Power et al., 1990) with 101 clients suffering from GAD, CBT was more effective than diazepam alone and diazepam was no more effective than a placebo.

Problems relating to the long-term use of medication have been reported including the development of tolerance or dependence, particularly with benzodiazepines. There is a lack of research on the risks of long-term use of psychopharmacological treatment for GAD. Rygh and Sanderson (2004) recommended that therapeutic treatments should be offered to clients before medical treatment.

Psychotherapeutic treatment and drug treatment have been reported to have similar efficacy in acute treatment (Gould et al., 1997; NICE, 2007). If the client experiences a high and intolerable level of anxiety, or if psychotherapeutic treatment is insufficient, medication could be considered as adjunctive treatment for a short period of time.

The choice of drug also depends on risks or side effects, previous treatment response, age of the client, treatment preference of the client and comorbid depressive disorders. Baldwin and Polkinghorn (2005) concluded that, at present, selective serotonin re-uptake inhibitors should be considered as the preferred

drug treatment for GAD. This has also been recommended by McIntosh et al. (2004) in Clinical Guidelines for the Management of Anxiety. For long-term pharmacological treatment of GAD, only antidepressants should be used (NICE, 2007).

A summary of drug treatments can be found in Tyrer & Baldwin (2006), Baldwin and Polkinghorn (2005), and in the evidence-based guidelines for the pharmacological treatment of anxiety disorders (Baldwin et al., 2005).

5.6 Psychotherapy combined with pharmacological treatment

From existing evidence it is not clear if the combination of pharmacological treatment and psychotherapy is more effective than one of these treatments alone. Therefore it is not possible at this stage to give a clear recommendation about combined treatment (Clinical Practice Guidelines, 2006; Baldwin et al., 2005; NICE, 2007; Tyrer & Baldwin, 2006). As mentioned above, short-term pharmacological treatment can be considered as an adjunct to therapy, particularly if the anxiety level is intolerable or impairment very high.

6. Good practice recommendations for therapy for anxiety

The following suggestions have been summarised from existing guidelines (Andrews et al., 2003; Anxiety Review Panel: Evans, Bradwejn, & Dunn, 2000; McIntosh et al., 2004; NICE, 2007; the British Association for Pharmacology: Baldwin et al., 2005) and are based on existing empirical evidence.

- CBT is an effective treatment for GAD.
- Psychotherapeutic treatment should be offered to clients before medical treatment. If the client experiences a high and intolerable level of anxiety or if psychotherapeutic treatment is insufficient, medication (preferably selective serotonin re-uptake inhibitors) could be considered as an adjunct to therapy for a short period of time.
- It is recommended that a detailed assessment is conducted of individual circumstances, environmental and social factors, such as previous treatments, comorbid disorders, level of functioning, social support system, life stressors, agoraphobic or avoidant symptoms.
- If a depressive disorder is present, the depression becomes the treatment priority. However, it is also important to discuss with the client what their perceptions of the main problems are.
- The progress of a client in therapy should be monitored individually for each client.

- It may be useful to provide information about anxiety to the client.
- Therapists should be aware that there is a higher risk of suicide or self-harm if the client is also suffering from depression or substance abuse.

7. Summary and conclusion

Based on available evidence, CBT can be recommended as the treatment of choice (i.e. best supported by available research evidence) for GAD. Pharmacotherapy should only be offered as an acute treatment if clients experience an intolerable level of impairment or if psychotherapy alone does not lead to significant improvement. Further research about therapeutic approaches other than CBT, and about long-term outcomes, are necessary. Mindfulness-based treatment for GAD seems to be a promising alternative treatment approach. However, further studies with larger sample sizes are necessary to confirm the effectiveness of this approach. Studies about supportive-humanistic approaches showed inconclusive results and therefore more studies are needed to gain more evidence about the efficacy of this therapeutic approach (Andrews et al., 2003).

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