Q4: Is relaxation training better (more effective than/as safe as) than treatment as usual in adults with anxiety symptoms (in absence of depressive episode/disorder) - who are in distress or have some degree of impaired functioning?

Background

Relaxation is one of the most common used techniques in the management of anxiety. Relaxation is a relatively simple form of psychological treatment and is thus of potential interest for non-specialized health care settings .

Population/Intervention(s)/Comparator/Outcome(s) (PICO)

Population:	adults with anxiety symptoms
Interventions:	relaxation training
Comparisons:	treatment as usual
Outcomes:	symptom reduction
	adverse effects

List of the systematic reviews identified by the search process

INCLUDED IN GRADE TABLES OR FOOTNOTES

Manzoni GM et al (2008). Relaxation training for anxiety: a ten-years systematic review with meta-analysis. *BMC Psychiatry* 8:41.

EXCLUDED FROM GRADE TABLES AND FOOTNOTES

Carlson CR, Hoyle RH. (1993) Efficacy of abbreviated progressive muscle relaxation training: a quantitative review of behavioral medicine research. *Journal of Consulting and Clinical Psychology,* 61:1059-67. (Reason for excluding: old)

Relaxation training in people with anxiety symptoms (in absence of depressive episode/disorder)

Eppley KR, Abrams AI, Shear J.(1989). Differential effects of relaxation techniques on trait anxiety: a meta-analysis. *Journal of Clinical Psychology*, 45:957-74. (Reason for excluding: old)

Krisanaprakornkit T et al (2006). Meditation therapy for anxiety disorders. *Cochrane Database of Systematic Reviews,* (1):CD004998 (Reason for excluding: meditation only. Meditation is likely a component of relaxation (and vice versa). Yet the Manzoni review covers relaxation more broadly).

Stetter F, Kupper S. (2002). Autogenic training: a meta-analysis of clinical outcome studies. *Applied Psychophysiology,* 27:45-98. (Reason for excluding: audiogenic training only. Audiogenic training is a component of relaxation. Yet the Manzoni review covers relaxation more broadly)

PICO Table

Serial no.	Intervention/Comparison	Outcomes	Systematic reviews used for GRADE	Explanation
1	Relaxation/ usual care	Symptom reduction; adverse effects	Manzoni et al (2008) review	The Manzoni et al (2008) review is the only recent review that studies a broad, comprehensive range of relaxation techniques

Narrative description of the studies that went into the analysis

Manzoni et al (2008)describe the studies as follows: In 8 studies the sample was composed by people with physical diseases, in 6 studies by volunteers or students, in 5 studies by patients with psychological or medically unexplained complaints. Progressive relaxation was used in 10 studies, the remainder involved, autogenic training, applied relaxation or multi-method relaxation techniques. Out of 19 studies, 9 were North American publications, 5 were Asian, 3 European and 2 Oceanian. Ten studies involved individual sessions and nine studies involved group sessions. Comparison condition consisted of waitlist, simply laying down on a relaxing chair or bed, and non-specific relaxing activities (i.e. reading a newspaper).

GRADE Tables

Table 1

Relaxation training in people with anxiety symptoms (in absence of depressive episode/disorder)

Author(s): Mark van Ommeren and Scott Baker
Date: 2009-06-27
Question: Should Relaxation vs treatment as usual be used for anxiety symptoms?
Settings:
Bibliography: Manzoni GM, Pagnini F, Castelnuovo G, Molirani E. Relaxation training for anxiety: a ten-years systematic review with meta-analysis. BMC Psychiatry 2008, 8-41

Quality assessment							Summary of findings					Importance
							No of patients		Effect		Quality	
No of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	Relaxation	treatment as usual	Relative (95% CI)	Absolute		
Anxiety symptom severity post intervention (Better indicated by higher values)												
19[1]	observational studies[2]	serious[3]	no serious inconsistency[4,5]	serious	no serious imprecision[7]	reporting bias[8]	568[1]	437[1]	-	0.51 higher (0.46 to 0.63 higher)[9]	⊕OOO VERY LOW	CRITICAL
Safety												
0	no evidence available					none	0/0 (0%)	0/0 (0%)	RR 0 (0 to 0)	0 fewer per 1000 (from 0 fewer to 0 fewer)		IMPORTANT
								0%		0 fewer per 1000 (from 0 fewer to 0 fewer)		

[1] See last paragraph of page 4 of the Manzoni et al, 2008 review
[2] The 19 studies include a mix of observational studies and RCTs. The review does not indicate how many of each.
[3] No information on drop-outs. Review only includes studies after 1997.
[4] I-squared is 38% (calculated from Q(18) = 28.93).
[5] See first column page 6 of the Manzoni et al, 2008 review.
[6] The comparator was not "treatment as usual" but "waitlist, simply laying down on a relaxing chair or bed, and non-specific relaxing activities (i.e. reading a newspaper)." Also the anxiety was a secondary complaint, rather than a primary complaint.
[7] 1005 subjects (page 4 of Manzoni et al, 2008 review).
[8] No information available on bias.
[9] The reported effect size is Cohen's d.

Reference List

Carlson CR, Hoyle RH. (1993) Efficacy of abbreviated progressive muscle relaxation training: a quantitative review of behavioral medicine research. *Journal of Consulting and Clinical Psychology,* 61:1059-67.

Eppley KR, Abrams AI, Shear J.(1989). Differential effects of relaxation techniques on trait anxiety: a meta-analysis. *Journal of Clinical Psychology*, 45:957-74.

Krisanaprakornkit T et al (2006). Meditation therapy for anxiety disorders. *Cochrane Database of Systematic Reviews,* (1):CD004998.

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From evidence to recommendations

Factor	Explanation
Narrative summary of the evidence base on the scoped question	There is very low quality evidence favoring relaxation over no treatment in reducing anxiety symptoms post treatment (N = 19; n = 1005; SMD = -0.51; 95% CI, -0.63 to -0.46).
Summary of the quality of evidence on the scoped question	VERY LOW (see GRADE table). A review summarizing a mixture of observational studies and randomized trials was GRADEd.
Additional evidence (eg related evidence that was not scoped)	A Cochrane Review on meditation therapy for anxiety disorders (Krisanaprakornkit et al, 2006) identified 2 RCTs for inclusion in its review of which 1 was on anxiety. Transcendental meditation showed a reduction in anxiety symptoms and electromyography score comparable with electromyography-biofeedback and relaxation therapy. The drop out rate was high (44%).

Relaxation training in people with anxiety symptoms (in absence of depressive episode/disorder)

Balance of benefits versus harms	Data on adverse effects were not meta-analyzed. The balance of benefits versus harms however seems favourable.
Define the values and preferences including any variability and human rights issues	The intervention is consistent with the value of promotion of capacity and skills of the person with the illness/symptoms. It is noted that many societies have their own culture-based forms of relaxation. These include meditation - an intervention that also includes a cognitive component and is consistent with religion and tradition in many areas of Asia. It is noted that in low and middle income countries that the treatment of anxiety symptoms in non-specialized health care settings is unlikely considered a priority public health decision makers and health services staff. Implementing these interventions may be done in group sessions (which may be more cost-effective).
Define the costs and resource use and any other relevant feasibility issues	The administration of relaxation exercises is a relative non-sophisticated intervention that can be quickly learned. Relaxation tends to be a multiple session activity, which thus is costly in terms of human resource use. Patients with anxiety symptoms often land up getting hypnotics - which have both resource implications as well as the risk of dependence. The possible alternative of offering relaxation may reduce the prescription of hypnotics.
Final recommendation(s) In non-specialized health care settings, relaxation training should be considered as treatment for anxiety symptoms (in absence of depressive episode/disorder) - who are in distress or have some degree of impaired functioning. Strength of recommendation: STANDARD	

Relaxation training in people with anxiety symptoms (in absence of depressive episode/disorder)

Update of the literature search – June 2012

In June 2012 the literature search for this scoping question was updated. The following systematic reviews were found to be relevant without changing the recommendation:

Halm MA. Relaxation: A Self-care Healing Modality Reduces Harmful Effects of Anxiety. American Journal of Critical Care 2009, 18(2), doi: 10.4037/ajcc2009867

NICE National Clinical Guideline Number 123. Common Mental Health Disorders. National Institute for Health and Clinical Excellence, 2011

NICE National Clinical Guideline Number 113. Generalized Anxiety Disorders. National Institute for Health and Clinical Excellence, 2011