Transport Accident Commission & WorkSafe Victoria

Evidence Service

Comparative effectiveness of counselling providers with different qualifications

Technical Report: Appendices 1-5

August 2013

Emma Donoghue, Natasha Dodge

A joint initiative of

INTRODUCTION

This technical report is a companion document to “Comparative effectiveness of counselling providers with different qualifications: Evidence Review”. It contains detailed information about the methods used in the development of the Evidence Review, summaries of the studies included in the review, and quality appraisal results for the most recent and/or most relevant included studies.

CONTENTS

APPENDIX 1: REVIEW PROCESS

A two-staged approach was undertaken.

Stage 1

Identify evidence available for each intervention

• Run search in health databases and relevant websites; limit to systematic reviews, randomised controlled trials and controlled clinical trials

• Apply inclusion and exclusion criteria

Critically appraise synthesised research

• Start with most recent review, apply standard appraisal criteria

• If found to be of high quality, cross check to ensure references from all other synthesised research are included and check for consistency of findings

• If not high quality, appraise next most recent and repeat process

• If there are inconsistent findings across the existing reviews, investigate the possibility of synthesis of this information or whether a new systematic review or meta-analysis is required

Decide on actions for Stage 2

• Identify whether sufficient high level evidence exists to answer questions or identify what further action needs to be taken (see algorithm in Table A1.1).

Stage 2

Address further actions identified, according to table A1.1.

Table A1.1. Further action required to answer clinical questions

<table>
<tr><th colspan="5">Is there any synthesised research available? (e.g. EBGs, HTAs, SRs)</th></tr>
<tr><th colspan="3">Yes</th><th colspan="2">No</th></tr>
<tr><th colspan="3">Is this good quality research?</th><th colspan="2">Are RCTs available?</th></tr>
<tr><th colspan="2">Yes</th><th>No</th><th>Yes</th><th>No</th></tr>
<tr><th colspan="2">Is it current (within 2 years)?</th><td rowspan="2">Undertake new SR or meta-analysis</td><td rowspan="2">Undertake new SR or meta-analysis</td><td rowspan="2">Consider looking for lower levels of evidence</td></tr>
<tr><th>Yes</th><th>No</th></tr>
<tr><td>No further action</td><td>Update existing SR</td><td></td><td></td><td></td></tr>
</table>

Key: Evidence Based Guidelines (EBGs), Health Technology Assessments (HTAs), Systematic Reviews (SRs), Randomised control Trials (RCTs).

APPENDIX 2: METHODS

Inclusion and exclusion criteria

TAC/WSV staff assisted in the development of inclusion and exclusion criteria. Inclusion and exclusion criteria were established *a priori* (Table A2.1). These criteria were applied by two reviewers independently and any discrepancies were discussed and resolved.

Table A2.1 Inclusion and Exclusion criteria

Patient/ population	**Inclusion:** Individuals experiencing mental health issues (such as depression, anxiety, post-traumatic stress disorder) following trauma
	Exclusion: Patients with mental health disorders from other causes such as postnatal depression or abuse will be excluded
Intervention/ indicator	**Inclusion:** Professional providers of counselling (such as psychiatrists and psychologists)
	Exclusion: -
Comparison/ control	**Inclusion:** Paraprofessional/Nonprofessional providers of counselling
	Exclusion: -
Outcomes	**Inclusion:** Mental health – depression/anxiety Other outcomes (i.e. return to work, return to health)
	Exclusion: -
Setting	**Inclusion:** N/A
	Exclusion: -
Study Design	**Inclusion:** Systematic reviews, randomised control trials, controlled clinical trials.
	Exclusion: Qualitative studies
Publication details	**Inclusion:** English language only
	Exclusion: -

Searches undertaken

Search strategies in electronic databases

Search strategies were used to identify existing reviews and trials (see Table A2.2).

Internet searches of relevant websites

The reviewers also searched websites of other accident compensation groups. Websites for The Motor Accidents Authority of NSW (www.maa.nsw.gov.au), and the Accident Compensation Corporation (ACC) of New Zealand (www.acc.co.nz) were searched using the terms 'counsel', 'counselling' and 'psychotherapy'.

Databases accessed

A comprehensive search of the Cochrane Library, Medline, Embase, CINAHL and PsycINFO was undertaken (see Table A2.3).

Table A2.2 Medline search strategy

1	psychotherapy.mp. or exp *Psychotherapy/ or exp *Psychotherapy, Brief/ or exp *Psychotherapy, Rational-Emotive/ or exp *Psychotherapy, Group/ or exp *Psychotherapy, Multiple/ or psychotherap*.mp.	11	nonprofessional.mp.
2	counsel*.mp. or exp *Directive Counseling/ or exp *Counseling/	12	"inexperienced clinician".mp.
3	1 or 2	13	"lay therapist".mp.
4	exp *Professional Role/	14	"lay person".mp.
5	exp *Clinical Competence/	15	4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14
6	exp *Professional Competence/	16	randomi*ed controlled trial.mp.
7	paraprofessional*.mp.	17	randomi*ed.mp.
8	professional.mp.	18	placebo.mp.
9	nonexpert.mp.	19	meta analysis.mp,pt. or review.pt.
10	novice.mp.	20	16 or 17 or 18 or 19
		21	3 and 15 and 20

*This strategy was adapted for use in the Cochrane Library, psycINFO, CINAHL and EMBASE

Table A2.3 Databases accessed

Database name	Dates covered	Date searched
Cochrane Library	From inception to June 2013	June 2013
Medline	From inception to June 2013	June 2013
CINAHL	From inception to June 2013	June 2013
EMBASE	From inception to June 2013	June 2013
PsychINFO	From inception to June 2013	June 2013

Data Extraction

Data on characteristics of the studies were extracted and summarised (see Appendix 4).

Appraisal

Appraisal was undertaken in steps:

1. The most recent systematic review was assessed for quality using standard appraisal criteria.
2. If found to be of high quality, it was cross checked against the other reviews (where available) to compare scope and consistency of findings.
3. If found not to be of high quality, the next most recent was appraised and the above process repeated.

Quality

Systematic reviews were appraised using standard criteria by a single reviewer in consultation with colleagues as required. Details of quality appraisals are included in Appendix 5.

Consistency of findings

Where a current, good quality review was available, the findings were compared with those in the other literature (where available) to identify any inconsistencies in the information provided.

APPENDIX 3: LIST OF INCLUDED STUDIES

1. Bright JI, Baker KD, Neimeyer RA. Professional and paraprofessional group treatments for depression: a comparison of cognitive-behavioral and mutual support interventions. J Consult Clin Psychol. 1999;67(4):491-501.
2. Boer PCAM, Wiersma D, Russo S, van den Bosch RJ. Paraprofessionals for anxiety and depressive disorders. Cochrane Database of Systematic Reviews (Online). 2005(2):CD004688.

APPENDIX 4: SUMMARY OF INCLUDED STUDIES

Table A4.1 summary of included studies

1st author, year, title	Inclusion, exclusion criteria (for P.I.C.O)	Study design	Conclusion/recommendation
Boer (2005) Paraprofessionals for anxiety and depressive disorders.	**POPULATION** Adult participants of 18 years and older with a diagnosis within the range of anxiety and depressive disorders, irrespective of gender, race or nationality	SR	The few studies included in the review did not allow conclusions about the effect for paraprofessionals compared to professionals, but three studies (women only) indicated a significant effect for paraprofessionals (all volunteers) compared to no treatment.
	INTERVENTION Any kind of psychological treatment for anxiety and depressive disorders by professionals		
	COMPARATOR Any kind of psychological treatment for anxiety and depressive disorders by paraprofessionals or control (waiting list/placebo)		
	OUTCOMES Depression and/or anxiety symptom scale scores. Validated observer self-rated measurement scales were accepted.		
Bright (1999) Professional and paraprofessional group treatments for depression: a comparison of cognitive – behavioural and mutual support interventions.	**POPULATION** Adult participants experiencing depression	RCT	Clinically significant improvement was demonstrated for both conditions. However, following treatment, more patients in the professionally led CBT groups were classified as non-depressed and alleviated than in the paraprofessionals led CBT groups.
	INTERVENTION Group cognitive behavioural therapy (CBT) and mutual support group therapy (MSG) led by a professional therapist.		
	COMPARATOR Group cognitive behavioural therapy (CBT) and mutual support group therapy led by a paraprofessional therapist.		
	OUTCOMES Improvements in depressive symptoms using validated scales.		

Key: Systematic Review (SR), Randomised Control Trial (RCT).

APPENDIX 5: APPRAISAL TABLES

Table A5.1 Critical appraisal table: Boer, 2005.

Study: Boer PCAM, Wiersma D, Russo S, van den Bosch RJ. Paraprofessionals for anxiety and depressive disorders. Cochrane database of systematic reviews (Online). 2005(2):CD004688	
Description of study: systematic review of 5 randomised controlled trials	
Patient/population	Adult participants of 18 years and older with a diagnosis within the range of anxiety and depressive disorders, irrespective of gender, race or nationality. The diagnosis is based on a structured clinical interview for assessment of a DSM or ICD diagnosis, or on assessment scales using cut off scores to establish caseness.
N	5 RCTs (n=326 participants) **Please note all these studies may not have assessed our comparators, populations and outcomes of interest.**
Setting	
Intervention/indicator	**Reference** / **Intervention** Barnett 1985 — Care as usual for anxious primiparous mothers applied by professionals (define) plus supportive intervention provided by paraprofessionals (volunteer experienced mothers) Bright 1999 — Cognitive behavioural therapy and supportive group therapy for depression facilitated by paraprofessionals (no formal training, recruited from community-based self-help organisations) Dennis 2003 — Peer support from experienced mothers for postpartum depression prevention Harris 1999 — Befriending among women with chronic depression Russell 1976 — Systematic desensitisation relaxation and cue-controlled relaxation for speeching anxiety facilitated by paraprofessionals (advanced undergraduate who had no previous training in interventions)
Comparison/control	**Reference** / **Comparison** Barnett 1985 — Care as usual for anxious primiparous mothers applied by professionals (social workers) Bright 1999 — Cognitive behavioural therapy and supportive group therapy facilitated for depression by professionals (master's degree in clinical training in clinical or counseling psychology) Dennis 2003 — Control condition Harris 1999 — Control condition Russell 1976 — Systematic desensitisation relaxation and cue-controlled relaxation for speeching anxiety facilitated by professionals (counselors PhD in psychology, experienced with interventions)
Outcomes	Depression and/or anxiety symptom scale scores. Validated observer and self-rated measurement scales were accepted.

Inclusion Criteria	Randomised controlled trials that used symptom measures, and compared the effects of any kind of psychological treatment given by paraprofessionals with psychological treatments given by professionals, or with waiting list or placebo condition.	
Exclusion Criteria	Quasi-randomised clinical trials.	
Study Validity.		
Is it clear that there were no conflicts of interest in the writing or funding of this review?	Yes	Declarations of interest: None Internal sources of support: Department of Psychiatry, University Medical Centre Groningen, Netherlands. External sources of support: No sources of support supplied
Does the review have a clearly- focused question?	Yes	"To systematically review all published and unpublished randomised controlled studies that have compared the effectiveness on symptom outcomes of any kind of psychological treatment of anxiety and depressive disorders for adults, performed by paraprofessionals, with psychological treatment by professionals, or with waiting list or placebo condition."
Is a systematic review the appropriate method to answer the question?	Yes	
Does the review have specified inclusion/exclusion criteria?	Yes	*See above*
If there were specified inclusion/ exclusion criteria, were these appropriate?	Yes	
Does the review document a comprehensive search strategy?	Yes	
Were reviewers blind to authors, institutions and affiliations?	Not reported	
Were 2 or more independent reviewers used for: **1. application of inclusion criteria to assess eligibility of studies?**	No	"One author screened all publications, which were obtained by the search strategy on their relevance to this review, based on the criteria for inclusion."

2. extraction of data from study reports?	Yes	"General information about methods (study duration, type of trial, patient/provider/outcome assessor blinding, anxiety/depression/disabling disorder, drop outs, co-interventions, integrity), participants (inclusion criteria, exclusion criteria, characteristics of setting, number of participants, age, sex, disease stage, race, nationality, baseline characteristic differences between groups), interventions (description of intervention and paraprofessionals, training/supervision, paid/volunteer, client/non-client, professional background, placebo condition, waiting list, frequency of contact, duration of therapy, integrity), outcome characteristics (N, Mean, Standard Deviation / n, N), and allocation concealment were extracted independently by two authors"
3. appraisal of study quality?	Yes	"Two authors independently assessed the study quality"
Were the strengths and limitations of included studies and potential impact on the results discussed?	Yes	"four studies were moderate in quality, and one was low in quality. Caution must be made in interpreting the results because of the small number of studies using small samples, different treatment duration, performance bias (blinding treatments), and rater-bias (use of self-rated and lack of blinding in observer rated measures)."
Was the validity of included trials appraised using appropriate criteria?	Yes	"Two authors independently assessed the study quality by means of Quality Rating Scale (QRS) developed by the Cochrane Collaboration Depression, Anxiety and Neurosis Review Groups."
Is there a summary of the results of individual studies?	Yes	
If meta-analyses were conducted, was it reasonable to do so?	Yes	
If meta-analyses were conducted, was it done appropriately?	Yes	
What is the overall risk of bias?	Low	*Low – Most of the criteria have been fulfilled, and where criteria have not been fulfilled it is very unlikely the conclusions of the study would be affected.*

Results.

"**Summary of the results**

…The individual studies suggested no significant differences between paraprofessionals and professionals, but indicated better results for paraprofessionals compared to the control

condition, which was found to be significant in three studies (Russell 1976; Harris 1999; Dennis 2003).

Main results

The pooled results indicated no significant difference between paraprofessionals and professionals at post treatment (Russell 1976,Barnett 1985,Bright 1999) and follow-up (Barnett 1985).A significant difference was found favouring paraprofessionals compared to the control condition, though heterogeneity was found between studies (Russell 1976; Barnett 1985;Harris 1999;Dennis 2003). Removing one study from pooling because of indistinct definition of post treatment measurement (Barnett 1985) resulted in a strongly significant effect and homogeneity. One study reported follow-up data, with no significant differences found between paraprofessionals and professionals, or between paraprofessionals and the control condition (Barnett 1985).

Sensitivity analyses

Low study quality or inadequate allocation concealment (Russell 1976) strengthened the result in favour of paraprofessionals. Both self-report and observer-rated scales were potentially biasing the results, with the self-report scale pointing in the direction of professionals, and with the observer-rated scale pointing to paraprofessionals for one intervention comparison (Bright 1999).No data were available to examine differences between intention-to-treat (all studies) versus per protocol analyses, sample size (all studies: small, <50 per group) and measures (all validated).

Subgroup analyses

Because of the small number of studies, most subgroup analyses could not be performed. The pooled estimate for less than three months' post treatment (post randomisation) measurements did not show a significant difference between paraprofessionals and professionals, whereas for a duration of more than three months, a significant difference was found favouring paraprofessionals compared to the control condition (Harris 1999). No differences were found for mixed samples (Russell 1976; Bright 1999) or women only (Barnett 1985) comparing professionals and paraprofessionals. No studies were available to examine whether the results would also apply to clinically significant anxiety and depressive disorders (potentially affecting all aspects of social functioning) of referred patients with a psychiatric history and/or whose illness has lasted two years or more.

Final analyses

Evaluating the study which appeared to cause heterogeneity (Barnett 1985), the measurement chosen for pooling post treatment outcome (three months' post randomisation) seemed to be inappropriate, while the primary outcome of the study was reduction of anxiety levels at 12 months' post randomisation, according to another study included in the review (Harris 1999). After correction for heterogeneity (taking the 12 months' post randomisation measurement; Barnett 1985) and removing the study of low quality (Russell 1976), pooling of three comparisons (n=128; mixed gender and women only) indicated no significant effect between paraprofessionals and professionals, and a strongly significant pooled effect for three comparisons (n=188; women only) favouring paraprofessionals over the control condition and homogeneity between studies."

See original publication for Tables and Figures of meta-analysis results

Author's Conclusions.

*"***Implications for practice**

The findings of this review are inconclusive on the effect of paraprofessionals partially replacing professionals in the treatment of anxiety and depressive disorders. While there were no significant differences found between paraprofessionals and professionals, the number of included studies was quite small, and the number with follow-up data was even smaller. Studies comparing paraprofessionals and professionals had methodological problems, therefore the possible and acceptable absence of differences leaves an open question about whether the studies were adequately designed and implemented to detect differences. Nevertheless, pooling data from three studies, all involving women only, indicated a strongly significant effect for paraprofessionals (all volunteers) compared to no treatment. Significant questions remain about the conditions under which paraprofessionals can be effective. Most studies mention some selection, training and supervision of paraprofessionals. If paraprofessionals, volunteers or patients, can be effective therapists (with no training or minor initial training), or can offer support because of their personal experience with the underlying problem, this will bring psychological treatment within the scope of psycho-education or education alone. The evidence presented so far may justify the development of new programs incorporating paraprofessionals.

Implications for research

Treatment programs for mood and anxiety disorders incorporating paraprofessionals need further evaluation on their effectiveness and cost-effectiveness. The effect of self-report and observer rater measures on the results needs more study. Blinding patients for the paraprofessional versus professional status of the treatment provider and controlling for blinding is likely to reduce performance bias, and needs to be done, but can hardly be performed with psychological or supportive interventions.*"*

Our Comments/Summary.

This is a well conducted systematic review with a low risk of bias.