Data supplement to Chowdary et al. The Healthy Activity Program lay counsellor delivered treatment for severe depression in India: systematic development and randomised evaluation. Br J Psychiatry doi: 10.1192/bjp.bp.114.161075

Table DS1
List of participants in the consultation exercise

	Experts (n=15)	Lay counsellors (n= 43)
Type	Psychiatrists: 10 (66.7%) Clinical Psychologists: 3 (20%) Psychiatric social workers: 2(13.3%)	Health Counsellors: 11 (25.6%) Health Assistants: 4 (9.3%) Hospital Ward attendants: 8 (18.6%) Accredited Social Health Activist (ASHA): 8 (18.6%) Multi-purpose workers: 7 (16.3%) School Counsellors: 5 (11.6%)
Range of Years of Experience		
1-5	1 (6.7%)	28 (65.1%)
6-10	3 (20%)	7 (16.3%)
11-15	2 (13.3%)	2 (4.7%)
16-20	3 (20%)	2 (4.7%)
21-25	3 (20%)	4 (9.3%)
26-30	3 (20%)	0 (0%)
>30	0 (0%)	0 (0%)
Gender		
Females	6 (40%)	33 (76.7%)
Males	9 (60%)	10 (23.3%)
Age Range		
20-29	0 (0.00%)	17 (39.5%)
30-39	5 (33.3%)	15 (34.9%)
40-49	5 (33.3%)	11 (25.6%)
50-59	5 (33.3%)	0 (0%)
Above 60	0 (0%)	0 (0%)

Table DS2

Psychological treatment strategies identified as being acceptable, feasible, effective and with a low risk of harm

TREATMENT STRATEGY	Mean MH experts score (n=15)	Mean Lay counsellor score (n=43)	Mean MH experts & lay counsellors' score
Physical exercise*	4.27	3.97	4.12
Psychoeducation*	4.09	4.01	4.05
Supportive Counselling*	4.02	3.93	3.97
Graded Task Assignment*	4.00	3.92	3.96
Family Psychoeducation*	4.10	3.78	3.94
Relaxation*	4.09	3.79	3.94
Enlisting social support*	4.05	3.73	3.89
Problem Solving*	3.78	3.70	3.74
Activity scheduling*	3.65	3.76	3.71
Religious and spiritual practices*	3.55	3.78	3.67
Identifying and managing interpersonal triggers*	3.68	3.57	3.62
Family Counselling*	3.57	3.62	3.59
Reminescence*	3.44	3.71	3.57
Support Groups*	3.56	3.58	3.57
Treatment Planning*	3.30	3.77	3.53
Cognitive Restructuring	3.29	3.61	3.45
Value Education	3.32	3.57	3.44
Radical Acceptance	3.34	3.46	3.40
Mindfulness	3.27	3.46	3.36
Contextual Functional Analysis	3.30	3.35	3.33
Focus on past experiences and relationships	2.99	3.47	3.23
Addressing unconscious mechanisms	2.23	3.58	2.91

*strategies taken forwards to the next stage

Table DS3
Relationship between number of sessions and treatment response

Session number	Treatment response criteria		
	PHQ-9 <10 (% response)	PHQ-9 5/more points decline (% response)	PHQ-9 50% score reduction (% response)
2 (n=93)	39.8	54.8	36.6
3 (n=67)	59.7	77.6	53.7
4 (n=44)	70.4	88.6	63.6
5 (n=34)	67.6	76.5	67.7
6 (n=22)	72.7	81.8	72.2

Table DS4

Baseline characteristics of trial participants

Characteristic	EUC	PT
Participants at baseline	34	28
Participants with follow-up data	31 (91%)	24 (86%)
Age		
Mean (SD)	42.8 (13.0)	37.6 (10.2)
Gender		
Female	20 (64.5%)	18 (75.0%)
Male	11 (35.5%)	6 (25.0%)
Marital status		
Married	22 (70.9%)	20 (83.3%)
Widow/ divorced/separated	5 (16.1%)	2 (8.3%)
Single, unmarried	4 (12.9%)	2 (8.3%)
Highest educational level reached		
None	6 (19.3%)	5 (20.8%)
Primary	17 (54.8%)	11 (45.8%)
Secondary or higher	8 (25.8%)	8 (33.3%)
Occupation status		
Unemployed	19 (61.3%)	12 (50.0%)
Manual worker	8 (25.8%)	9 (37.5%)
Professional	3 (9.7%)	2 (8.3%)
No data	1 (3.2%)	1 (4.2%)

Online Supplement DS1
Details of literature reviews

(I) Search strategy for global literature review

Since the mhGAP reviews involved an extensive literature search on psychological treatments prior to 2009, we searched electronic databases (PubMed and PsycINFO) from January 1st 2009 to January 1st 2011. The search terms (in any field) included: Depression OR depressive AND Psycho* OR therapy OR Counseling OR treatment.

Eligibility criteria:

- Only systematic reviews (SR) and randomized controlled trials (RCTS) were included in this review.
- There was no restriction on language, sample size, type of comparison group or outcome measure.
- Only studies in adults (19 years and above) with DD were included in this review. Patients with common mental disorders, anxiety disorders, adjustment disorders, and comorbid depression and anxiety were included. Patients with comorbid physical illness also could be included. Studies which included patients with other psychiatric conditions as their primary diagnosis were excluded. There was no gender restriction.
- All non pharmacological treatments were included. Studies of computerized/internet based interventions were excluded. Control groups could include any intervention including medication.

The titles of the papers identified through the database search were screened and the abstracts of relevant papers were retrieved. These abstracts were examined for possible inclusion and full texts of selected papers were retrieved. The excluded titles were examined by a second reviewer as a reliability check for the final list of the studies included in review These full texts were then examined to determine their compliance with eligibility criteria.

(II) Search strategy for regional literature review

We used several methods to identify literature describing the use of PT in South Asia. We identified published (indexed) literature by searching electronic databases, hand searching reference lists of selected papers and contacting key informants in the region for reference lists of relevant articles. The electronic databases searched were PubMed Central, IndMed (indexing data of articles published in Indian biomedical journals), PsycInfo, PsycExtra from 1/1/1990 to 31/12/2010. Search terms used were:

For PubMed, PsycINFo, PsycExtra:

- Depression OR Depressive OR anxiety

AND

- South Asia OR India OR Pakistan OR Bangladesh OR Sri Lanka OR Bhutan OR Nepal OR Maldives OR Afghanistan

AND

- psycho* OR therapy OR counselling OR behaviour.

For IndMed:

1. Depression OR Depressive OR anxiety AND
2. Counseling OR psycho* OR therapy OR behaviour (each separately)
3. Psychotherapy

Search 1: (1) AND (2); Search 2: (3)

Since there is likely to be relevant PT from the region that may not have found its way into the indexed literature, we searched the grey literature. This was obtained from two sources: visits to key local libraries and through key informants (see III and IV below, respectively). The library

searches included hand searching Table of Contents of non indexed journals and, searching library catalogues for books, project reports, manuals and dissertations. Where online catalogues were available, the search terms employed for electronic database searches were used. Key informants (mainly PT experts and mental health professionals) were contacted by email and/or phone to enquire about unpublished work or ongoing research.

Inclusion criteria:

- All literature from South Asia that describes the psychological treatments for DD was included. This includes all types of research studies as well as systematic reviews, RCTS, narrative reviews, case reports and treatment manuals. It was however required that the papers describe or review patient based studies and are not merely authors' opinions.
- Publications in English were included.
- Studies in adults (19 years and above) with DD were included. Patients with common mental disorders, anxiety disorders, adjustment disorders, and comorbid depression and anxiety were included. Patients with comorbid physical illness also could be included. Studies with patients with other psychiatric conditions as their primary diagnosis were excluded. There was no gender restriction.
- All non pharmacological treatments were included. Hence, psychotherapy, counselling, religious treatments, meditation, etc, when used alone or with medications, were included. Studies of only pharmacological preparations whether allopathic or from indigenous systems of medicine were excluded.

The titles of the papers identified through the database search were screened and the abstracts of relevant papers were retrieved. These abstracts were examined for possible inclusion and full texts of selected papers were retrieved. These full texts were then examined to determine their eligibility for inclusion in the review. Authors were contacted by email for full texts that were not available online. A reminder was sent to authors who did not respond to the first request. Additional searching was done by means of hand and archive searches of relevant books, journals and the reference lists of included papers.

(III) List of libraries visited for the regional literature review

Library	Description	Types of Publications
Tata Institute of Social Sciences (TISS), Mumbai	Prime institute in social science research and training	Books, Journal articles Theses
Post Graduate Institute, Chandigarh	Prime Institute of medical training and research	Journals; Indian Psychology Abstracts & Reviews Indian Psychology Reviews
National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore	Apex Institute of training and Research in Psychiatry	Journals Books Theses: 1. PhD Clinical Psychology 2. PhD Psychiatry 3. PhD Social Work 4. M Phil Psychology 5. MSc Nursing
Institute of Human Behavior And Allied Sciences (IHBAS), New Delhi	Leading Institute of mental health training and research	Books Journals Theses
National Medical Library, New Delhi	National medical library and information centre	Books Journals Theses

(IV) List of key informants for the regional literature review

Name	Designation
Mitchell Weiss	Professor and Head, Swiss Tropical and Public Health Institute and University of Basel
Shubhangi Parkar	Professor of Psychiatry, KEM Hospital, Mumbai
K S Jacob	Professor of Psychiatry, Christian Medical College, Vellore
Atif Rahman	Professor of Child Psychiatry, University of Liverpool, UK and Human Development Research Foundation, Pakistan.
Mark Jordans	Clinical Psychologist, Senior Research & Technical Advisor HealthNet TPO
Athula Sumathipala	Consultant Psychiatrist, Institute for Research and Development, Sri Lanka
Mohan Issacs	Former Professor of Psychiatry, NIMHANS, Bangalore
Shiv Gautam	Editor, Indian Psychiatric Society Treatment Guidelines
Lalit Batra	Editor, Indian Psychiatric Society Treatment Guidelines
Kiran Rao	Professor of Clinical Psychology, NIMHANS, Bangalore
Freny Mahindra	Clinical Psychologist, Samaritans, Mumbai

Online Supplement DS2
List of participants of the treatment development workshops

Name	Designation and institution
INDIAN EXPERTS	
Padmavati R	Psychiatrist, SCARF, Chennai
Ramesh Kumar	Psychiatrist, SCARF, Chennai
Hema Tharoor	Psychiatrist, SCARF, Chennai
Arivazagan K	Psychologist, SCARF, Chennai
Shanta Kamath	Psychiatrist, SCARF, Chennai
Mangala R	Psychiatrist, SCARF, Chennai
Kotteswara Rao	Psychiatric Social Worker, SCARF, Chennai
Karpagavalli P	Clinical Psychologist, SCARF, Chennai
Suresh Kumar	Psychiatrist, Chennai
Keerthi Prem	Clinical Psychologist, Apollo Multi-Speciality Hospitals LTD, Chennai
Nithya HM	Clinical Psychologist, VHS Medical Centre, Chennai
Sangeetha Madhu	Clinical Psychologist, Chennai Institute of Learning and Development, Chennai
Mohan Raj S	Psychiatrist, Private clinic, Chennai
Jacob KS	Psychiatrist, Christian Medical College, Vellore
K V Kishore	Psychiatrist, NIMHANS, Bangalore
Jagadisha N	Psychiatrist, NIMHANS, Bangalore
C Naveen Kumar	Psychiatrist, NIMHANS, Bangalore
Johnson R	Psychiatrist , St. Johns Medical College, Bangalore
Senthil Reddy	Psychiatrist, NIMHANS, Bangalore
Paulomi Sudhir	Clinical Psychologist, NIMHANS, Bangalore
Vidya Satyanarayan	Clinical Psychologist, St. Johns Medical College, Banaglore
Aarti Taksal	PhD Student in Clinical Pscyhology, NIMHANS, Bangalore
Priya kaul	Clinical Psychologist, private practice, Bangalore
Rathna Isaac	Clinical Psychologist, private practice, Bangalore
Dharitri Ramprasad	Clinical Psychologist, The Richmond Fellowship Postgraduate College, Bangalore
Prakashi Rajaram	Psychiatric Social Worker, NIMHANS, Bangalore
Janardhana N	Psychiatric Social Worker, NIMHANS, Bangalore
Ranganathan R	Psychiatric Social Worker, NIMHANS, Bangalore
Nagarajaiah D	Psychiatric Nurse, NIMHANS, Bangalore
INTERNATIONAL EXPERTS	
Christopher Fairburn	Psychiatrist, Oxford University, UK
Michael King	Psychiatrist, University College, London, UK
Lena Verdeli	Clinical Psychologist, Teachers College, Columbia University, USA
Ricardo Araya	Psychiatrist, University of Bristol , UK
Atif Rahman	Psychiatrist, University of Liverpool, UK
Mark Jordans	Clinical Psychologist, TPO, Netherlands and LSHTM, UK
Sona Dimidjian	Clinical Psychologist, University of Boulder, Colorado, USA
Steve Hollon	Clinical Psychologist, Vanderbilt University, Tennessee, USA
Terry Wilson	Clinical Psychologist, Rutgers University, USA

SCARF: Schizophrenia Research Foundation; NIMHANS: National Institute of Mental health and Neurosciences; LSHTM: London School of Hygiene and Tropical Medicine

Online Supplement DS3
Reference list of papers identified in the global and regional literature reviews

I. Global literature

1. Beltman MW, Voshaar RC, Speckens AE. Cognitive-behavioural therapy for depression in people with a somatic disease: meta-analysis of randomised controlled trials. Br J Psychiatry. 2010 Jul;197(1):11-9.
2. Cape J, Whittington C, Buszewicz M, Wallace P, Underwood L. Brief psychological therapies for anxiety and depression in primary care: meta-analysis and meta-regression. BMC Med. 2010;8:38.
3. Driessen E, Cuijpers P, de Maat SC, Abbass AA, de Jonghe F, Dekker JJ. The efficacy of short-term psychodynamic psychotherapy for depression: a meta-analysis. Clin Psychol Rev. Feb;30(1):25-36.
4. McNaughton JL. Brief interventions for depression in primary care: a systematic review. Can Fam Physician. 2009 Aug;55(8):789-96.
5. Peng XD, Huang CQ, Chen LJ, Lu ZC. Cognitive behavioural therapy and reminiscence techniques for the treatment of depression in the elderly: a systematic review. J Int Med Res. 2009 Jul-Aug;37(4):975-82.
6. Driessen E, Cuijpers P, de Maat SC, Abbass AA, de Jonghe F, Dekker JJ. The efficacy of short-term psychodynamic psychotherapy for depression: a meta-analysis. Clinical psychology review. 2010 Feb;30(1):25-36.
7. Bressi C, Porcellana M, Marinaccio PM, Nocito EP, Magri L. Short-term psychodynamic psychotherapy versus treatment as usual for depressive and anxiety disorders: a randomized clinical trial of efficacy. J Nerv Ment Dis. 2010 Sep;198(9):647-52.
8. Morrell JC, Pauline S, Warner R, Paley G, Dixon S, Walters SJ, et al. Clinical effectiveness of health visitor training in psychologically informed approaches for depression in postnatal women: pragmatic cluster randomised trial in primary care. BMJ. 2009.
9. Mulcahy R, Reay RE, Wilkinson RB, Owen C. A randomised control trial for the effectiveness of group Interpersonal Psychotherapy for postnatal depression. Arch Womens Ment Health. 2009 Apr;13(2):125-39.
10. Serfaty MA, Haworth D, Blanchard M, Buszewicz M, Murad S, King M. Clinical effectiveness of individual cognitive behavioral therapy for depressed older people in primary care: a randomized controlled trial. Arch Gen Psychiatry. 2009 Dec;66(12):1332-40.
11. Beeber LS, Holditch-Davis D, Perreira K, Schwartz TA, Lewis V, Blanchard H, et al. Short-term in-home intervention reduces depressive symptoms in Early Head Start Latina mothers of infants and toddlers. Res Nurs Health. 2010 Feb;33(1):60-76.
12. Grote NK, Swartz HA, Geibel SL, Zuckoff A, Houck PR, Frank E. A randomized controlled trial of culturally relevant, brief interpersonal psychotherapy for perinatal depression. Psychiatr Serv. 2009 Mar;60(3):313-21.
13. Arean PA, Raue P, Mackin RS, Kanellopoulos D, McCulloch C, Alexopoulos GS. Problem-solving therapy and supportive therapy in older adults with major depression and executive dysfunction. Am J Psychiatry. 2010 Nov;167(11):1391-8.
14. Ell K, Katon W, Xie B, Lee PJ, Kapetanovic S, Guterman J, et al. Collaborative care management of major depression among low-income, predominantly Hispanic subjects with diabetes: a randomized controlled trial. Diabetes Care. 2010 Apr;33(4):706-13.
15. Hofmann SG, Sawyer AT, Witt AA, Oh D. The effect of mindfulness-based therapy on anxiety and depression: A meta-analytic review. J Consult Clin Psychol. 2010 Apr;78(2):169-83.
16. Mazzucchelli TG, Kane RT, Rees CS. Behavioral activation interventions for well-being: A meta-analysis. J Posit Psychol. 2009 Mar;5(2):105-21.
17. Powers MB, Zum Vorde Sive Vording MB, Emmelkamp PM. Acceptance and commitment therapy: a meta-analytic review. Psychother Psychosom. 2009;78(2):73-80.
18. Cuijpers P, Munoz RF, Clarke GN, Lewinsohn PM. Psychoeducational treatment and prevention of depression: the "Coping with Depression" course thirty years later. Clin Psychol Rev. 2009 Jul;29(5):449-58.
19. Godfrin KA, van Heeringen C. The effects of mindfulness-based cognitive therapy on recurrence of depressive episodes, mental health and quality of life: A randomized controlled study. Behav Res Ther. 2010 Aug;48(8):738-46.
20. Hyer L, Yeager CA, Hilton N, Sacks A. Group, individual, and staff therapy: an efficient and effective cognitive behavioral therapy in long-term care. Am J Alzheimers Dis Other Demen. 2008 Dec-2009 Jan;23(6):528-39.
21. Kocsis JH, Gelenberg AJ, Rothbaum BO, Klein DN, Trivedi MH, Manber R, et al. Cognitive behavioral analysis system of psychotherapy and brief supportive psychotherapy for augmentation of antidepressant nonresponse in chronic depression: the REVAMP Trial. Arch Gen Psychiatry. 2009 Nov;66(11):1178-88.
22. Segal ZV, Bieling P, Young T, MacQueen G, Cooke R, Martin L, et al. Antidepressant monotherapy vs sequential pharmacotherapy and mindfulness-based cognitive therapy, or placebo, for relapse prophylaxis in recurrent depression. Arch Gen Psychiatry. 2010 Dec;67(12):1256-64.
23. Donker T, Griffiths KM, Cuijpers P, Christensen H. Psychoeducation for depression, anxiety and psychological distress: a meta-analysis. BMC Med. 2009;7:79.
24. Blake H, Mo P, Malik S, Thomas S. How effective are physical activity interventions for alleviating depressive symptoms in older people? A systematic review. Clin Rehabil. 2009 Oct;23(10):873-87.
25. Da Costa D, Lowensteyn I, Abrahamowicz M, Ionescu-Ittu R, Dritsa M, Rippen N, et al. A randomized clinical trial of exercise to alleviate postpartum depressed mood. J Psychosom Obstet Gynaecol. 2009 Sep;30(3):191-200.

26. Wang C, Bannuru R, Ramel J, Kupelnick B, Scott T, Schmid CH. Tai Chi on psychological well-being: systematic review and meta-analysis. BMC Complement Altern Med. 2010;10:23.
27. Hou WH, Chiang PT, Hsu TY, Chiu SY, Yen YC. Treatment effects of massage therapy in depressed people: a meta-analysis. J Clin Psychiatry. 2010 Jul;71(7):894-901.
28. Field T, Deeds O, Diego M, Hernandez-Reif M, Gauler A, Sullivan S, et al. Benefits of combining massage therapy with group interpersonal psychotherapy in prenatally depressed women. J Bodyw Mov Ther. 2009 Oct;13(4):297-303.
29. Shih M, Yang Y-H, Koo M. A Meta- Analysis of Hypnosis in the Treatment of Depressive Symptoms: A Brief Communication. Clinical and Experimental HYPNOSIS. 4 ed: Routledge; 2009. p. 431 - 42.
30. Boelens PA, Reeves RR, Replogle WH, Koenig HG. A randomized trial of the effect of prayer on depression and anxiety. Int J Psychiatry Med. 2009;39(4):377-92.
31. Mead N, Lester H, Chew-Graham C, Gask L, Bower P. Effects of befriending on depressive symptoms and distress: systematic review and meta-analysis. Br J Psychiatry. 2010 Feb;196(2):96-101.
32. Cohen S, O'Leary KD, Foran H. A randomized clinical trial of a brief, problem-focused couple therapy for depression. Behav Ther. 2010 Dec;41(4):433-46.
33. Chan AS, Sze SL, Cheung MC, Lam JM, Shi D. Dejian mind-body intervention improves the functioning of a patient with chronic epilepsy: a case report. Cases J. 2009;2:9080.

II. Regional Literature

1. Ali BS, Rahbar MH, Naeem S, Gul A, Mubeen S, Iqbal A. The effectiveness of counseling on anxiety and depression by minimally trained counselors: a randomized controlled trial. Am J Psychother. 2003;57(3):324-36.
2. Janakiramaiah N, Gangadhar BN, Naga Venkatesha Murthy PJ, Harish MG, Subbakrishna DK, Vedamurthachar A. Antidepressant efficacy of Sudarshan Kriya Yoga (SKY) in melancholia: a randomized comparison with electroconvulsive therapy (ECT) and imipramine. J Affect Disord. 2000 Jan-Mar;57(1-3):255-9.
3. Patel V, Chisholm D, Rabe-Hesketh S, Dias-Saxena F, Andrew G, Mann A. Efficacy and cost-effectiveness of drug and psychological treatments for common mental disorders in general health care in Goa, India: a randomised, controlled trial. Lancet. 2003 Jan 4;361(9351):33-9.
4. Patel V, Weiss HA, Chowdhary N, Naik S, Pednekar S, Chatterjee S, et al. Effectiveness of an intervention led by lay health counsellors for depressive and anxiety disorders in primary care in Goa, India (MANAS): a cluster randomised controlled trial. Lancet. 2010 Dec 18;376(9758):2086-95.
5. Rahman A, Malik A, Sikander S, Roberts C, Creed F. Cognitive behaviour therapy-based intervention by community health workers for mothers with depression and their infants in rural Pakistan: a cluster-randomised controlled trial. Lancet. 2008 Sep 13;372(9642):902-9.
6. Tripathy P, Nair N, Barnett S, Mahapatra R, Borghi J, Rath S, et al. Effect of a participatory intervention with women's groups on birth outcomes and maternal depression in Jharkhand and Orissa, India: a cluster-randomised controlled trial. Lancet. 2010 Apr 3;375(9721):1182-92.
7. Ali NS, Ali BS, Azam IS, Khuwaja AK. Effectiveness of counseling for anxiety and depression in mothers of children ages 0-30 months by community workers in Karachi, Pakistan: a quasi experimental study. BMC Psychiatry. 2010;10:57.
8. Andrew G, Dias-Saxena F, Patel V. The Development of a Counselling Treatment for Common Mental Disorders in General Health Care Settings. Indian Journal of Clinical Psychology. 2000;27(1):72-9.
9. Dubey SN. Effectiveness of Conitive Behaviour Therapy for the Treatment of Depression :A Case Report. Indian Journal of Clinical Psychology. 1999;26(2):188-91.
10. Kannappan R. Cognitive behaviour therapy as an adjunct to drug therapy in the treatment of dysthymic disorder. Journal of the Indian Academy of Applied Psychology. 2007;33(2):195-200.
11. Mao A. Mindfullness based CBT in anxiety disorders. Bangalore: NIMHANS; 2003.
12. Nalini. NR, Kumaraiah V, Subakrishna. DK. Cognitive Behaviour Therapy in the Treatment of Neurotic Depression. NIMHANS Journal. 1996;14(1):31-5.
13. Rahul AG, Joseph MI. Influence of Meditation on Anxiety. Indian Journal of Community Psychology. 2009;5(2):228-34.
14. Sinha M, Sudhir PM, Kumaraiah V. Effects of Cognitive Behavioral Intervention on Anxiety, Depression and Subjective Well Being of Women with Infertility. Indian Journal of ClinicalPsychology. 2008;35(1):60-6.
15. Somasundaram D. Using traditional relaxation techniques in healthcare. Int Med J. 2002;9(3):191-8.
16. Vidya R. Cognitive Behavioural Intervention in Somatisation. Bangalore: NIMHANS; 2001.
17. Grover P, Varma VK, Pershad D, Verma SK. Role of yoga in the treatment of neurotic disorders: current status and future directions. Indian J Psychiatry. 1994 Oct;36(4):153-62.
18. Jena SPK. Cognitive Behaviour Therapy. New Delhi: Sage Publications 2008.
19. Naveen GH, Varambally S, Thirthalli J. Yoga For Depression. Bangalore: Advanced Centre for Yoga; 2010.

20. Prameela V, Veena AS, Rao K, Premchander S. Counselling Intervention for Rural Women with Psychological Distress. In: Rao k, editor. Mindscapes Global Perspective on Psychology In Mental Health. Bangalore: NIMHANS; 2007.
21. Khandelwal S. Conquering Depression: You can get out of the blues. New Delhi: World Health Organisation, Regional Office for South-East Asia; 2001.
22. India TFoCPGfPi. Clinical Practice Guidelines for Psychiatrists in India: Indian Psychiatric Society; 2004.
23. Dubey SN, Pradhan M. Effectivenss of Cognitive Behaviour Therapy for the treatment of Major Depression. Indian Journal of Community Psychology. 2004;1(1):70-6.

Online Supplement DS4
Criteria used for content analysis of psychological treatment manuals

Criteria	Very Low (1)	Low (2)	Avg. (3)	High (4)	Very high (5)
1. Suitability: To what extent is the manual directed for/suitable for use by a lay/community health worker?					
2. Engagement factors: To what extent does the manual address issues related to engagement?					
3. Structure of sessions: To what extent does the manual provide a clear sessional outline?					
4. Description of techniques: To what extent does the manual provide detailed description of PT techniques?					
5. Language: To what extent is the language used in the manual appropriate for use by non specialists in our cultural context?					
6. Supporting material: To what extent does the manual include supporting material such as patient information materials, check-lists etc?					
7. Flexibility: To what extent does the manual provide options in treatment delivery methods thus allowing the counsellor to be flexible in delivering the PT (for example, for less literate patients or on the telephone)					
8. Addressing challenges: To what extent does the manual address problems that may arise during treatment with solutions for these?					

Online Supplement DS5 Log of changes made to the manual during the various stages of the treatment development process

Domain	Procedure	Rationale
Ensuring use of culturally appropriate language and colloquial expressions	• Treatment renamed 'Healthy Activity Program'	• Promoting rewarding and pleasurable activities is the therapeutic goal, and the focusing on these behaviours is culturally valued.
	• Use of terms such as 'stressed' or 'tension' where necessary and avoidance of psychiatric labels such as 'depression' or 'mental illness'	• Depression not well understood as a term. Stressed or burden more understandable in the local context. To minimise stigma.
	• 'Counsellor' used instead of 'therapist'	• Counsellor is a widely understood term of a health professional who provides advice/talking interventions, for e.g. HIV/AIDS and breast feeding counsellors, and is now part of the language of national health programs
	• 'Patient' instead of 'client'	• Since the intervention is based in the PHC, the medical model of a 'patient' seeking care for a health problem is more acceptable
	• Terms to describe various components of the intervention simplified. For example, 'Learning together' instead of 'assessment, "Breaking down" and "timing" activities instead of "structuring" and "scheduling", addressing 'Thinking too much' instead of rumination'	• Using literal translations or translations which are not culturally acceptable is one of the major barriers in therapy and more difficult for counsellors as well as patients to relate to.
Enhancing the therapeutic alliance	• An accompanying 'Counselling Relationship" manual developed in addition to the HAP manual	• To emphasise the importance of this element of treatment and provide additional guidelines for lay counsellors to develop an effective and collaborative therapeutic relationship
	• Emphasis on provision of hope and reassurance	• Enhance patient engagement and strengthen the therapeutic relationship in the context of low exposure to the concept of 'talking treatments'
Addressing culturally relevant distress experiences	• Emphasis on addressing economic and social problems faced by patients early in the course of the treatment by increased emphasis on involving significant other, mobilising social resources, and problem solving	• Social problems trigger depression and interfere with patient engagement and recovery if left unaddressed
	• List of common problems and possible solutions listed in the manual to aid counsellors • Detailed listing of social welfare agencies provided to facilitate referrals when needed	• Many patients presenting with multiple/severe social problems that the counsellor found difficult to address, e.g.: financial difficulties; unemployment, etc
	• Emphasis in addressing the mind body link and physical health concerns in the early phase	• To address the distress caused by physical symptoms and health concerns that are an integral part of the depressive experience
	• Skill building techniques *(e.g. communication skills)* added	• Lack of skills in the patient can be a barrier in effective activation
	• Advice regarding dealing with sleep difficulties and tobacco use added	• Tailored advice for presenting symptoms addresses personal concerns and enhances engagement. Tobacco (particularly oral) frequently used and is recognized risk factor for depression
Enhancing counsellors' ease in delivering the treatment	• Section on handling difficult situations that the counsellor may encounter added in the manual. For example, patient not convinced that 'talking treatment' will help, patient focuses only on physical health problems rather than emotional/psychological problems	• Enhance skills of counsellors to manage common challenging real life clinical situations
	• Emphasis with clear-cut guidelines on how to deal with patients who have high risk of suicide provided to counsellors	• Enhance the confidence of counsellors in dealing with patients with high suicide risk and to enhance the safety of the program in the context of lay counsellors
	• Outline of each phase presented in the manual step by step in practical,	• To assist counsellors in delivering the intervention in a structured manner

Domain	Procedure	Rationale
	user-friendly manner • Use of a phase specific session checklist for counsellors to complete at the end of session	• To provide counsellors with a guide to use during sessions so as to not miss out any important step.
Addressing literacy barriers	• Simplification of therapeutic tools. For example, activity monitoring done in blocks of time (morning, afternoon, night) rather than hourly • Use of pictorial tools for patients with limited literacy such as depiction of various activities in the form of pictures that the patient can then easily track • Homework charts filled in the session with the counsellor • The mood rating done using culturally appropriate metaphors, for example, mood ladder rating mood on a pictorial ladder from 1 to 10; dichotomous rating i.e. good/bad mood used instead of Likert scale; emoticons (smileys) to pictorially depict low/good mood; use a tick mark (√) to indicate good mood and a cross (X) to indicate a low mood	• To overcome limited literacy levels and lack of familiarity with the concept of 'homework' • Facilitated work with non-literate patients who found it difficult to quantify their mood on a typical Likert scale. It helped to convert an abstract concept such as mood into a more concrete, easy to understand concept
Improving patient adherence and treatment completion	• Length of treatment fixed to maximum of 8 sessions (without booster sessions) delivered at weekly/fortnightly intervals in three phases – early, middle and ending phase • Home visits provided as the preferred format of treatment delivery • Telephone sessions provided where feasible • Provision to deliver an abbreviated first session included • Involvement of other PHC staff sought by orientating them to the treatment and seeking their assistance in encouraging patients to see the counsellor • Counsellor matched from the same local community and aware of local customs	• To streamline the referral process and ensure that patients needing further interventions are referred to a specialist. • To increase accessibility and feasibility and enhance treatment adherence by reducing burden on patients and overcome practical barriers to help-seeking • To accommodate patients who do not have time for the first session as they primarily came to the PHC to see the doctor and had not factored in the additional time for counselling • Facilitate integration with PHC services and enhance treatment adherence • Local credibility and acceptability, fluency in local dialect, shared experience in norms and events impacting community
Attention to specific social context	• Significant others (for example, spouses, children) encouraged participate in the intervention. Focus on improving relationship and reducing conflict with significant others. Manual specifically includes guidelines to involve the significant other in every phase of the treatment	• Acknowledges the central role of the family in the daily lives of patients
Use of supporting material	• Booklet containing information about depression, the Healthy Activity Program and treatment worksheets provided • Information material for significant other provided	• To enhance understanding and engagement with the treatment between sessions • To enhance engagement of the significant other who may not attend sessions