

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



Chatterjee, S; Naik, S; John, S; Dabholkar, H; Balaji, M; Koschorke, M; Varghese, M; Thara, R; Weiss, HA; Williams, P; McCrone, P; Patel, V; Thornicroft, G (2014) Effectiveness of a community-based intervention for people with schizophrenia and their caregivers in India (COPSI): a randomised controlled trial. *Lancet*. ISSN 0140-6736 DOI: [https://doi.org/10.1016/S0140-6736\(13\)62629-X](https://doi.org/10.1016/S0140-6736(13)62629-X)

Downloaded from: <http://researchonline.lshtm.ac.uk/1620483/>

DOI: [10.1016/S0140-6736\(13\)62629-X](https://doi.org/10.1016/S0140-6736(13)62629-X)

Usage Guidelines

Please refer to usage guidelines at <http://researchonline.lshtm.ac.uk/policies.html> or alternatively contact researchonline@lshtm.ac.uk.

Available under license: <http://creativecommons.org/licenses/by-nc-nd/2.5/>

THE LANCET

Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Supplement to: Chatterjee S, Naik S, John S, et al. Effectiveness of a community-based intervention for people with schizophrenia and their caregivers in India (COPSI): a randomised controlled trial. *Lancet* 2014; published online March 5. [http://dx.doi.org/10.1016/S0140-6736\(13\)62629-X](http://dx.doi.org/10.1016/S0140-6736(13)62629-X).

This online appendix has been corrected. The corrected version first appeared at thelancet.com on June 13, 2014

Online Table A. Association of complete/almost complete adherence with intervention arm

	CBCC arm	FBC arm	Adjusted OR (95%CI)	P-value
Participant				
Baseline	108/163 (66%)	61/85 (72%)	1	
6 months	142/162 (88%)	61/83 (73%)	3.11 (1.49-6.48)	0.002
12 months	146/164 (89%)	64/84 (76%)	2.93 (1.34-6.39)	0.01
Caregiver				
Baseline	107/166 (64%)	57/85 (67%)	1	
6 months	148/165 (90%)	65/83 (78%)	2.75 (1.28-5.96)	0.01
12 months	143/163 (88%)	64/83 (77%)	2.27 (1.10-4.69)	0.03

Online Table B. Intervention and service costs by group and site.

	FBC				CCBC			
Cost component	Whole sample	Tamil Nadu	Goa	Satara	Whole sample	Tamil Nadu	Goa	Satara
Number of sessions with patients	-	-	-	-	17.1 (6.9)	16.6 (4.9)	20.6 (8.3)	14.1 (5.6)
Travel time (hours)	-	-	-	-	35.0 (28.3)	51.9 (30.8)	30.1 (23.8)	19.3 (15.8)
Cost of sessions	-	-	-	-	1209 (524)	1195 (408)	1434 (627)	990 (435)
Cost of travel	-	-	-	-	2135 (1726)	3169 (1884)	1839 (1453)	1178 (964)
Cost of supervision	-	-	-	-	3481 (1396)	3386 (1002)	4181 (1690)	2859 (1138)
Total intervention cost	-	-	-	-	6825 (3001)	7750 (2658)	7454 (3315)	5027 (2200)
Other service costs	5685 (6500)	4864 (8981)	5892 (5033)	6451 (4030)	8163 (16,876)	4237 (5922)	14,804 (27,762)	6184 (6068)
Total costs	5685 (6500)	4864 (8981)	5892 (5033)	6451 (4030)	15,250 (17,179)	12,242 (6108)	22,636 (27,901)	11,393 (6779)

¹ Costs are measured in Indian Rupees

Box 1. Components of the COPSI CCBC intervention

- Structured needs assessments at enrolment and, every three months thereafter, to develop matched individualized treatment plans
- Structured clinical reviews by treating team and supervision for CHWs
- Psycho-educational information for both participants and caregivers
- Adherence management strategies
- Health promotion strategies to address physical health problems in participants
- Individualized rehabilitation strategies to improve the personal, social and work functioning of participants
- Specific efforts with participants and caregivers to deal with experiences of stigma and discrimination
- Linkage to self-help groups and other methods of user led support
- Networks with community agencies to address social problems, to facilitate social inclusion, access to legal benefits and employment opportunities

References

1. Lund C, DSM, Plagerson S, et al. Poverty and mental disorders: breaking the cycle in low-income and middle-income countries. *Lancet* 2011; ; **378**: : 1502–14.
2. Thornicroft G, BE, Rose D et al. Global pattern of experienced and anticipated discrimination against people with schizophrenia: a cross-sectional survey. *Lancet* 2009; **373**: 408-15.
3. Collins PY, PV, Joestl SS, et al. Grand challenges in global mental health. *Nature*. 2011; **475**: 27-30.
4. Chatterjee S, Pillai A, Jain S, Cohen A, Patel V. Outcomes of people with psychotic disorders in a community-based rehabilitation programme in rural India. *Br J Psychiatry*. 2009; **195**(5): 433-9.
5. Chatterjee S, Leese M, Koschorke M, McCrone P, Naik S, John S, et al. Collaborative community based care for people and their families living with schizophrenia in India: protocol for a randomised controlled trial. *Trials*. 2011; **12**: 12.
6. Haro JM, Kamat SA, Ochoa S. The Clinical Global Impression-Schizophrenia Scale: a simple instrument to measure the diversity of symptoms present in schizophrenia. *Acta Psychiatr Scand*. 2003; **107**(Suppl (416)): 16-23.
7. Balaji M, CS, Koschorke M, et al. The development of a lay health worker delivered collaborative community based intervention for people with schizophrenia in India. *BMC Health Services Research* 2012,; **12**:42.
8. Kay SR, Fiszbein A, Opler LA. The positive and negative syndrome scale (PANSS) for schizophrenia. *Schizophr Bull*. 1987; **13**(2): 261-76.
9. Thara R. Indian Disability Evaluation and Assessment Scale; 2002.
10. Chaudhury PK, Deka K, Chetia D. Disability associated with mental disorders. *Indian J Psychiatry*. 2006; **48**(2): 95-101.
11. Brohan E, Clement S, Rose D, Sartorius N, Slade M, Thornicroft G. Development and psychometric evaluation of the Discrimination and Stigma Scale (DISC). *Psychiatry Research*. 2013; **208**(1): 33-40.
12. Ritsher JB, Otilingam PG, Grajales M. Internalized stigma of mental illness: psychometric properties of a new measure. *Psychiatry Res*. 2003; **121**(1): 31-49.
13. Hamilton S, Pinfold V, Rose D, Henderson C, Lewis-Holmes E, Flach C, et al. The effect of disclosure of mental illness by interviewers on reports of discrimination experienced by service users: a randomized study. *Int Rev Psychiatry*. 2011; **23**(1): 47-54.
14. Brohan E, Henderson C, Little K, Thornicroft G. Employees with mental health problems: Survey of U.K. employers' knowledge, attitudes and workplace practices. *Epidemiol Psychiatr Soc*. 2010; **19**(4): 326-32.
15. Sartorius N, Gulbinat W, Harrison G, Laska E, Siegel C. Long-term follow-up of schizophrenia in 16 countries. A description of the International Study of Schizophrenia conducted by the World Health Organization. *Social Psychiatry and Psychiatric Epidemiology*. 1996; **31**(5): 249-58.
16. Chisholm D, Sekar K, Kumar KK, Saeed K, James S, Mubbashar M, et al. Integration of mental health care into primary care. Demonstration cost-outcome study in India and Pakistan. *Br J Psychiatry*. 2000; **176**: 581-8.
17. Chatterjee S, Patel V, Chatterjee A, Weiss HA. Evaluation of a community-based rehabilitation model for chronic schizophrenia in rural India. *Br J Psychiatry*. 2003; **182**: 57-62.
18. Adams G, Gulliford MC, Ukoumunne OC, Eldridge S, Chinn S, Campbell MJ. Patterns of intra-cluster correlation from primary care research to inform study design and analysis. *J Clin Epidemiol*. 2004; **57**(8): 785-94.

19. Roberts C, Roberts SA. Design and analysis of clinical trials with clustering effects due to treatment. *ClinTrials*. 2005; **2**(2): 152-62.
20. Boutron I, Moher D, Altman DG, Schulz KF, Ravaud P. Extending the CONSORT statement to randomized trials of nonpharmacologic treatment: explanation and elaboration. *Ann Intern Med*. 2008; **148**(4): 295-309.
21. Hackshaw A, Kirkwood A. Interpreting and reporting clinical trials with results of borderline significance. *BMJ*. 2011; **343**: d3340.
22. Schulz KF, Altman DG, Moher D. CONSORT 2010 statement: updated guidelines for reporting parallel group randomised trials. *PLoS Med*. 2010; **7**(3): e1000251.
23. Thornicroft G, Wykes T, Holloway F, Johnson S, Szmulker G. From efficacy to effectiveness in community mental health services. *PRiSM Psychosis Study*. 10. *BrJPsychiatry*. 1998; **173**: 423-7.
24. Kulhara P CS, Avasthi A, et al. Psychoeducational intervention for caregivers of Indian patients with schizophrenia: a randomised-controlled trial. *Acta Psychiatr Scand* 2009;; **119**:: 472-83.
25. Parantahaman V KS, Lim J-L, Singh HSS et al. Effective implementation of a structured psychoeducation programme among caregivers of patients with schizophrenia in the community. *Asian Journal of Psychiatry*,. 2010; **Vol: 3**:: 206-12.
26. Sharif F SMA. Effect of a psycho-educational intervention for family members on caregiver burdens and psychiatric symptoms in patients with schizophrenia in Shiraz, Iran. *BMC Psychiatry*,. 2012; **12**::48.
27. Farooq S NZ, Irfan M, et al. : . Schizophrenia medication adherence in a resource poor setting: randomised controlled trial of supervised treatments for out- patients for schizophrenia (STOPS). *British Journal of Psychiatry* 2011.; **199**: 467-72
28. Thornicroft G, Tansella M. The balanced care model for global mental health. *Psychol Med*. 2013; **43**(4): 849-63.
29. Dua T BC, Clark N, Fleischmann A, Poznyak V, et al. Evidence-Based Guidelines for Mental, Neurological, and Substance Use Disorders in Low- and Middle-Income Countries: Summary of WHO Recommendations.. *PLoS Med*. 2011; **8**(11): **e1001122**. **doi:10.1371/journal.pmed.1001122**.
30. Gaebel W, Becker T, Janssen B, Munk-Jorgensen P, Musalek M, Rossler W, et al. EPA guidance on the quality of mental health services. *Eur Psychiatry*. 2012; **27**(2): 87-113.

Figure 2. Total PANSS and IDEAS scores over time and across study arms

