Treating Schizophrenia with DOTS in Developing Countries: One Size Does Not Fit All

Renato Souza, Silvia Yasuda, Susanna Cristofani

Although DOTS is advocated as the best approach for global tuberculosis control, the variable success of this strategy [1] should help us in learning which problems we might face while adopting the same strategy for the treatment of schizophrenia in developing countries, as Dr. Farooq suggests [2].

Our experience of integrating mental health into primary health care in developing countries has taught us that some points stated in the five pillars of DOTS for tuberculosis cannot be totally transferred to the treatment of schizophrenia, unless some of their principles and weak points are addressed in advance [3]:

1. In developing countries, we face the challenge of integrating mental health knowledge into the skills of poorly qualified and over-burdened primary health care staff. Therefore, unless strong training and supervision capacity for staff at primary health care levels is developed, this obstacle won’t be overcome.

2. Passive case finding, for a disease that provokes such high levels of disability, stigma, and human rights abuse as schizophrenia, is not appropriate in our view.

3. A standard treatment regimen needs to be overseen with caution if implemented for the treatment of schizophrenia, due to the need to adjust the dose of the antipsychotic based on patient response and side effects.

4. A regular supply of essential psychotropic medication is obligatory but non-existent in most developing countries, and when available does not extend to the primary health care level.

5. Monitoring and tracking patients under treatment is an enormous burden to overstretched primary health care systems, unless the community is heavily involved.

In Darfur-Sudan, due to the high level of mental health morbidity, Médecins Sans Frontières has been implementing a syndromic approach to the diagnosis of mental illnesses [4]. For the identification of patients with severe mental illness including schizophrenia, community health workers are trained to identify patients at the community level, using a locally developed case definition of severe mental illness based on existing local idioms for those conditions.

During a period of two months, we have identified 49 patients that were brought to the health clinic, where a medical assistant made the diagnosis and started the treatment. Community health workers provide therapeutic education to patients and caretakers and support them to continue the treatment within the community. All professionals are under the supervision of a mental health trainer.

Some patients were in such dramatic situations as being chained to their beds. Some had received several forms of traditional treatments without any success.

We firmly believe that unless a system is built where the community is involved, medical personnel receive training and supervision, and Ministries of Health commit to delivering a constant supply of drugs at the primary health care level, the attempt to use one or another strategy won’t bring much relief to patients and families affected by this disease.

It was in 1974 that the World Health Organization recommended that mental health care be integrated at the primary health care level. The management of psychosis was identified as one of the priorities [5]. It is very unfortunate that in most of the places where Médecins Sans Frontières works, the majority of health workers usually neglect the needs of people with severe mental illness.

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References
1. Whalen CC (2006) Failure of directly observed treatment for tuberculosis in Africa: a call for new approaches. Clin Infect Dis 42:1048–1050
2. Patel V, Farooq S, Thara R (2007) What is the best approach to treating schizophrenia in developing countries? PLoS Med 4: e159. doi:10.1371/journal.pmed.1000159
3. World Health Organization (1994) Framework for effective tuberculosis control. WHO document WHO/TB/94.179.
4. Kim G, Torbay R, Lawry L (2007) Basic, women’s health, and mental health among displaced persons in Nyala Province, South Darfur, Sudan. Am J Public Health 97:1–9. doi:10.2105/AJPH.97.1.96
5. World Health Organization (2001) The effectiveness of mental health services in primary care: The view from the developing world. WHO document WHO/MSD/MPS/01.1.

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Treating Schizophrenia with DOTS in Developing Countries: Author’s Reply

Saeed Farooq

I am grateful to Souza et al. [1] for taking interest in our article [2] and pointing out some very relevant points. I agree with the authors that despite the fact that the World Health Organization and many other agencies have advocated that mental health care in developing countries be integrated into primary care, there has been no real progress. We need to think about the real causes for this failure. Lack of commitment by governments is only a partial explanation.

The mental health professionals practicing in developing countries, must also accept responsibility. One of the major reasons is that we have not been able to formulate simple interventions that can be implemented at the primary care level as a public health measure. The approach based on DOTS for treating schizophrenia is one such intervention.

Most of the issues raised by Souza et al. are the problems that we are likely to face in applying an approach...
developed basically for an infectious disease to a chronic noncommunicable disease. I would like to stress that, as mentioned in the article, the approach is based on the principles of DOTS, not on applying DOTS exactly as practiced in tuberculosis control to the treatment of schizophrenia. I agree with the authors that it will need considerable modifications before it can be applied to a chronic disorder like schizophrenia. They have pointed out several issues and I would like to address these.

1. Health workers would definitely need to be better trained under the supervision of mental health professionals to apply this approach in primary care.

2. I very much appreciate the work of the authors and agree that passive case finding is not an option. This will result in the plight of patients mentioned in their letter. One of the benefits of the approach suggested in our article is that as a result of an intervention available at the public health level there will be greater awareness of severe mental illness. Consequently there will be earlier recognition of these cases in the community. As mentioned in the article, this should also result in reduced stigma for the disorder.

3. It should be possible to provide a standard regimen for treatment of schizophrenia based on the essential psychotropic drugs. We were able to develop this for our pilot project and are also using the same approach in our randomized controlled trial [3].

4. One of the major reasons for advocating this approach is that it could ensure free supplies of the drugs as a part of a DOTS program. One of five essential components of the DOTS strategy is government commitment to providing drugs free of cost. This is the cornerstone of the strategy suggested in our article.

5. Monitoring and tracking of patients is important but need not stretch primary care workers beyond capacity, as schizophrenia is a low prevalence disorder. As explained in the article, the implementation of DOTS would be for a two-year period. The community can only be involved if we can offer effective interventions for those suffering from this chronic and disabling disorder. The approach suggested in our article represents an attempt to bring mental health into the public health arena. Schizophrenia is a low prevalence disorder, for which effective interventions are available and can be implemented at the community level. It therefore represents an ideal disorder for intervention based on DOTS. Applying an approach developed essentially for a disorder which has a time-limited course and is high on the public health agenda to a disorder which is noncommunicable and runs a much protracted course demands a paradigm shift. There are examples of similar approaches in other noncommunicable diseases. Insulin Demonstration projects, which have been initiated to improve access to insulin by the International Diabetes Foundation Task Force, can provide good models [4]. Small scale programs based on the model suggested in our article should be developed locally in developing countries before we can expect governments to support them. Organizations such Médecins Sans Frontières are ideally suited to develop programs like these. One size may not fit all but we can make a suitable size for a great majority. □

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References
1. Souza R, Yasuda S, Cristofani S (2007) Treating schizophrenia with DOTS in developing countries: One size does not fit all. PLoS Med 4: e281. doi:10.1371/journal.pmed.0040281
2. Patel V, Farooq S, Thara R (2007) What is the best approach to treating schizophrenia in developing countries? PLoS Med 4: e159. doi:10.1371/journal.pmed.0040159
3. [No authors listed] (2007) Supervised treatment of schizophrenia: A randomized controlled trial. ID NCT00392249. Available: http://clinicaltrials.gov/ct/show/NCT00392249?order=1. Accessed 24 August 2007.
4. International Diabetic Federation (2004) Insulin Demonstration project. Available: http://www.idf.org/e-atlas/home/index. Accessed 24 August 2007.

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Excessive Work Hours of Physicians in Training: Maladaptive Coping Strategies
Pashtoon Murtaza Kasi, Masoom Kassi, Talha Khawar

We would like to congratulate Kenneth R. Fernández Taylor for bringing up such an important but avoided issue in developing countries like Pakistan [1]. The growing debate regarding long working hours of postgraduate trainees has been receiving considerable attention recently [2]. This greater workload contributes to increasing stress and decreases the overall performance and the quality of life of the affected individuals [3,4].

In Pakistan, physicians, after having done a five-year medical degree (MBBS) course, are supposed to do their “internship”, or “house job” as it is often referred to. The salaries speak a sorry tale as the typical monthly salary of an intern starts from 8,000 rupees (US$129); even lower than what is mentioned by the author in El Salvador.

The author very rightly describes a typical tiring working week for an intern with little or no time for any educational activities. Some of the specialties are known for the fact that their working hours are “killing” for their residents and interns; unfortunately, some may even pride themselves on this. This inhuman approach is not often criticized by the interns working in a hospital; probably because they are too tired at the end of a day or even two or three continuous days to do so. We know of two specialties (neurosurgery and urology) in which the on call team came on Friday and left on Monday morning (72 hours straight); the reason being no other team was available to cover for them. And most of the time what an intern does is merely “clerical” work, with little satisfaction.

We, as final year medical students, tried to bring attention to this issue by documenting firstly how many hours the interns and residents worked; and secondly if these hours led to negative coping strategies or mechanisms, which might further contribute to the stress of these individuals, rather than helping them in relieving it.
We found that long working hours were indeed leading to negative coping mechanisms such as behavioral disengagement ("I’ve been giving up trying to deal with it"), substance use ("I’ve been using alcohol or drugs to make myself feel better"), denial ("I’ve been saying to myself, ‘this isn’t real’"), and venting ("I’ve been saying things to let my unpleasant feelings escape"). The frequency of different coping strategies employed by the residents in the past two weeks was determined with the Brief COPE–28 tool [5].

We also found significant levels of mild as well as morbid stress in the trainees of the hospital, with every second individual suffering from some degree of stress as well. Action indeed is needed. ■

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References
1. Fernández Taylor KR (2007) Excessive work hours of physicians in training in El Salvador: Putting patients at risk. PLoS Med 4: e205. doi:10.1371/journal.pmed.0040205
2. Howard SK, Gaba DM (2004) Trainee fatigue: Are new limits on work hours enough? CMAJ 170: 975–976.
3. Howard SK, Gaba DM, Rosekind MR, Zarcone VP (2002) The risks and implications of excessive daytime sleepiness in resident physicians. Acad Med 77: 1019–1025.
4. Parshuram CS, Dhanani S, Kirsh JA, Cox PN (2004) Fellowship training, workload, fatigue and physical stress: A prospective observational study. CMAJ 170: 965–970.
5. Carver CS (1997) You want to measure coping but your protocol’s too long: Consider the brief COPE. Int J Behav Med 4: 92–100.

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