

Mental health in the Islamic Republic of Iran: achievements and areas of need

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SUMMARY The development of mental health in the Islamic Republic of Iran is described with particular reference to the integration mental health into the primary health care system. The achievements made so far are outlined and the areas of need discussed.

Introduction

The Islamic Republic of Iran is a large country with an area of over 1 648 000 km². It comprises 28 provinces, 282 districts, 724 cities, 742 towns and over 2260 villages. The population is estimated at more than 60 million, with 50.4% under the age of 19 years and 4.4% over 65 years. The population growth rate is 1.41% [1]. Urbanization has been on the rise; 60.4% of the population lives in urban areas and 39.6% in rural areas [2]. Large cities have been swelling and Teheran, the capital, alone is home to over 11 million people. The official language is Farsi (Persian), and 99.6% of the population is Muslim [1].

General health indicators have been improving in the country. These achievements have been possible because of the primary health care (PHC) system [1,3]. The health network, run by local staff, has spread to the remotest parts of the country and has brought about immense changes in the promotion and maintenance of the community's health. Medical care has improved as a result of an increase in human resources and their optimal distribution. The number of physicians has increased to over 90 000 compared with 47 373 in 1990. The number of hospital beds increased from 55 368 in 1979 to 96 148 in 1997. Outpatient services are also available at 65 public clinics and 328 private clinics

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It is with deep sorrow we announce the deaths of Dr Shahmohammadi and Dr Layeghi who were tragically killed in an air crash in February 2002.

[4]. There are 735 psychiatrists and about 50 new psychiatrists graduate every year [5]. There are 1.3 psychiatric beds per 10 000 population, which is higher than the regional average (0.8 per 10 000) but much lower than the 3.6 in the United States population and 9.3 in Europe [6]. There are also 25 clinical psychologists with doctorates, more than 389 clinical psychologists with master degrees, and 5000 individuals with bachelor degrees in psychology [7].

History of mental health services

Four periods can be defined in more recent Iranian mental health services. In the first period, which lasted until the 1940s, lunatic asylums (*darolmajanin*) with poor conditions existed in Teheran, Hamadan, Shiraz and Isfahan [4]. The second period began in the 1940s when medical schools were established in the country and psychiatry emerged from them as a branch of modern medicine. The formation of new university hospitals and later the development of psychiatry departments and hospitals and residency training in psychiatry in the 1960s further improved the quality of care offered to psychiatric patients, at least in larger cities.

In the third period, which spans the 1970s, efforts were directed towards achieving comprehensive mental health care by the society for rehabilitation of the disabled and community mental health care. This was directed by a first deputy of the Ministry of Health and Welfare. The Ministry initiated a series of epidemiological research projects, built a number of new psychiatric hospitals and centres in different regions of the country and started level-based training in psychiatry and psychiatric nursing. These educational and re-

search programmes were integrated to form the Teheran Psychiatric Institute after the Islamic revolution in 1979.

The fourth period started in October 1986, when the National Programme of Mental Health (NPMH) was drafted by a multidisciplinary team of professionals and adopted by the government [8]. The main strategy was to integrate new activities into the efficient PHC system.

Integration of mental health into the PHC system

From 1988 to 1990 successful pilot studies were implemented in Shahr-e-Kord and Shahreza in central Islamic Republic of Iran, which showed significant increased knowledge of health workers and improved skill in patient screening compared with the control area [9,10]. Following this, a number of developments occurred in the country that led to a more rapid expansion of the programme [11-13]. Several factors seem to have contributed to this acceleration [14,15], which were:

- Creation of a mental health unit within the Ministry of Health and Medical Education.
- Declaration of mental health as the 9th component of PHC.
- Formation of a national mental health advisory committee, members of which were mainly faculty members of the medical schools.
- Preparation of educational manuals for all levels of health delivery (1988).
- Reviews and workshops on the national programme (1991) and mental health research methodology (1993).
- Annual celebration of mental health week in October since 1985.

- Improved awareness of other health staff through workshops, seminars and conferences.
- Improved public awareness about mental health through the mass media.

Achievements

The 12 years of expansion of the integration of mental health within PHC has resulted in immense improvements in the provision of mental health services as illustrated in Figures 1-5. The number of district health centres in which mental health is integrated into the PHC system has increased to 234 in 2001 (84% of available centres). The number of rural and urban health centres in which mental health is integrated into the PHC system has increased to 2417 (54% of available centres). The number of health houses in which mental health is integrated into the PHC system has increased to close to 10 000 (70% of available health houses). Furthermore, the number of people in the rural areas covered by the programme has increased to 15 626 729 (63%) and in urban areas to 4 568 301 (10.8%); 20 195 130 (30.1%) in total.

Evaluation

Routine monitoring of mental health activities is being carried out through regular re-

port-taking and statistical analysis and periodic visits to the field by responsible professionals in the provinces and headquarters in Teheran. However, independent evaluations are welcomed. One such independent evaluation was carried out by the World Health Organization Regional Office for the Eastern Mediterranean in 1995. The research included field surveys and data collection from 266 multi-purpose health workers (*behvarz*) and health houses, 91 general physicians and rural health centres, and 737 families who lived in the neighbourhood of the rural areas where mental health programmes were in operation [14-17]. It also included a study on psychiatric disorders in general medical practice and pathway to treatment [17].

Another study in the province of Khorasan found that 72.2 % of patients who were first screened at the launching phase of the programme had been suffering from their illness undiagnosed for 3 years. This shows how effective such an integration would be in secondary prevention [11]. It is interesting to note that in other pathway to treatment studies, it has been shown that seeking help from traditional healers as first contact has shifted from 40.2% in 1990 [9] to 14.1% in 1998 and 15.6% in 2000

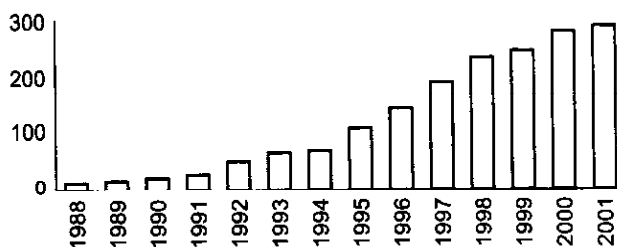


Figure 1 Number of district health centres in which mental health is integrated into the primary health care system by year

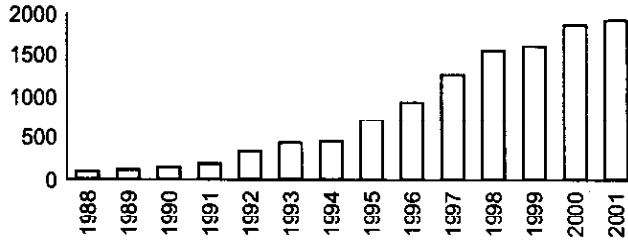


Figure 2 Number of rural health centres in which mental health is integrated into the primary health care system by year

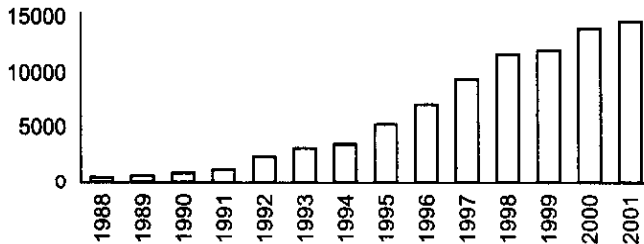


Figure 3 Number of health houses in which mental health is integrated into the primary health care system by year

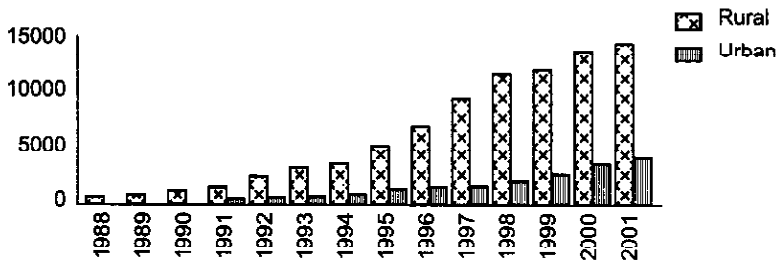


Figure 4 Rural and urban populations covered by the mental health programme by year

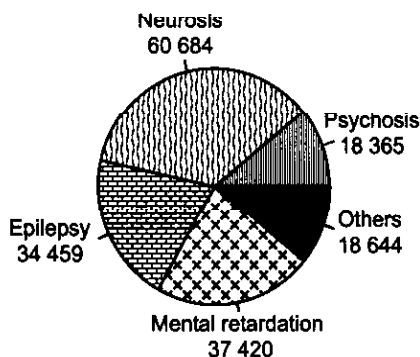


Figure 5 Number of mental health patients identified, treated and followed up within the primary health care system from 1988 to 2001

[17,18]. Although these findings do not come from the same area, they might reflect a real shift in pathway to treatment with time.

Areas of need

In a rapidly changing society like the Islamic Republic of Iran, where even the basic demographic structure is not comparable to 12 years ago, it would be inappropriate to follow the same priorities and the same guidelines as then. Since 2001, arguments have been raised in favour of a radical revision of NPMH or in support of keeping it as is. A more realistic view would be to keep the first NPMH intact as a manifesto, but to add new articles to it according to the emerging demands. Thus, instead of arranging formal and time-consuming meetings to improve the wording of a new NMHP, appointing ad hoc committees to deal with different mental health problems would be more suitable for the new situation. Such task-oriented committees should

receive contributions (as members or inputs) from the community and the experts of the particular field and would be responsible for producing smaller programmes/projects. These smaller programmes could be added to the main body of NMHP as annexes. In this manner, both the continuity of the programme will be guaranteed and the new demands will be met efficiently. Some of the new requirements are discussed below:

Continuation of integration

The integration of the mental health into the PHC system needs to continue in the remaining rural areas of the country; 37% of the rural population are not still covered. This is quite feasible to accomplish in the coming 5 years.

Improving the quality of service delivery

This is a priority. Sensitivity of the screening activity by primary health workers is low [11,13], the referral system is not working efficiently, especially at more central levels [19], and the system has confined itself mainly to case-finding and treatment. To overcome these shortcomings, the following activities are needed: re-education of *behvarz*, provision of medications free of charge or at least with subsidization, re-education of staff at more central levels (mainly to improve their attitude towards community-oriented service delivery), provision of liaison psychiatry services in general medical settings, and establishment of working connections between the PHC system and the private sector to ensure continuity of care. Nongovernmental organizations (NGOs), which have been increasing, should be involved in this.

Urban mental health

Rapid urbanization requires a shift in atten-

tion towards urban areas [19]. PIIC is not as strong in urban areas. *Behvarz* only exist in rural areas, and the private sector, which does not favour community orientation, is very strong. There have been pilot projects in which *behvarz* have been substituted by neighbourhood volunteers. The experience has been limited and needs expansion and support [13,20]. It seems that in urban areas alternative projects should be piloted too. One such project might be the creation of catchments areas around university hospitals with psychiatry services. There is some preliminary research experience in the country [21], but more pilot programmes need to be implemented. The possibility of involving NGOs and the private sector should be considered too.

In larger cities, it is likely that mental health service delivery will be much more heterogeneous in the future. This should be accepted, but the urban mental health programme should follow its defined goals through directing, coordinating and giving differential momentum to these diverse activities.

Mental health promotion

Although in the original version of NPMH strategies for mental health promotion were considered on a general level, we now need more specific plans for mental health promotion. Already, efforts have been made to increase public awareness and to improve the public's attitude towards mental health. Since 1985, the last week in October has been designated mental health week and it is celebrated throughout the country. For example, during the mental health week in 2001, 245 mental health meetings and seminars and 4100 training sessions were held, and widespread news coverage of the week was found on national radio, television and other media. Such activities should be directed toward more definite

goals which will provide both the community and specific high-risk groups with the necessary means to overcome stressful conditions, which will indirectly improve mental health outcome measures. Many of the action plans can be integrated into a comprehensive school mental health programme, and some can be integrated into the healthy city projects already being studied in Teheran [13,20,22].

Child and adolescent mental health

A great shift in the age distribution of the population towards younger ages has occurred over the past 2 decades. Mental health planning needs to shift accordingly. Many overlapping pilot projects have already started in this respect.

For example, school mental health programmes have been initiated. In Damavand, a city of 250 000 inhabitants about 100 km north of Teheran, a pilot project was started in 1997 which covered both students and parents [23]. The intervention significantly improved students' and parents' knowledge and attitude towards mental health, increased students' self-esteem, relieved their problems with parents and teachers, reduced fear of examinations, ended physical punishment of the students and truancy from school, and reduced sexual assaults and smoking. This study is a small-scale example of how interventions at school might help. A comprehensive school mental health programme awaits preparation and implementation.

As regards child abuse, the mental health office has initiated a programme based on prevention of child abuse and violence against women in collaboration with the United Nations Children's Fund and the World Health Organization. Three research projects have been undertaken to identify the magnitude of the problem as part of the needs assessment procedure. Training

modules have been prepared for general practitioners and health workers on prevention of child abuse and four training workshops have been held on children's rights in four provinces. Much still has to be done in the area of child abuse and its different aspects; physical, sexual and emotional. A main part of this activity should be carried out in the context of the school mental health programme.

Substance abuse

Because of a long-established habit of opium use in the Islamic Republic of Iran, there has always been strong pressure by policy-makers for supply-reduction strategies. Therefore, during the 1980s, demand-reduction activities were disregarded banned in favour of supply reduction. Thus, almost all of the current drug demand-reduction activities in the country were started in the 1990s. Previously, from the legal view point, using drugs was simply a crime and there was no possibility of treatment. As a result detention centres were filled with drug users. When it became evident that such a strategy was not effective, the first national programme on demand-reduction was worked out in 1994. In the same year, the first outpatient clinic started working at a governmental health facility. Concurrently, Narcotics Anonymous, a self-help group, was established with a few members and now serves more than 10 000 people. Currently, there are almost 130 outpatient clinics and 300 beds available for treatment of drug users at governmental health facilities. At the same time, many refresher and training workshops have been held for physicians, nurses and social workers on demand-reduction issues. This, along with the easing of regulations made by the Ministry of Health and Medical Education, has led to the involvement of hundreds of physicians

in the treatment of drug users. Numerous guidelines on treating drug users have been published by different health authorities. It is estimated that in the governmental facilities alone, some 60 000 drug users are admitted annually.

Based on the current data on drug use in the country, it has been estimated that there are 1.5 million drug-dependent individuals. Opium is the most commonly used drug at a rate of 37%, followed by cannabis and heroin with rates of 21% and 19% respectively. The mean age of drug users is 33 years, while the mean age at starting using drugs is 22 years. The proportion of injecting drug users has been estimated at 29%. Not surprisingly, 63% of HIV/AIDS cases in the Islamic Republic of Iran are known to have a history of injecting drug use [24,25].

Although, the current established treatment schedules do not include drug substitution regimes, harm reduction strategies are due to start soon at some prisons.

Regarding primary prevention, numerous programmes are already functioning at the community level; most of them include the participation of schools. The media have also been widely involved in campaigns against drug use and a pilot project is underway to assess the possibility of integrating a prevention programme of substance abuse disorders within the PHC system.

Mental health in natural disasters

The Islamic Republic of Iran is subject to both earthquake and floods. Natural disasters cause an enormous amount of death and disability, and major financial losses every year. The major concern of our health system in the past was to reduce physical mortality and morbidity. At the same time, such events can be a considerable source of stress to the survivors and

cause serious and long lasting psychiatric complications. Recently, joint activities of the Ministry of Health and Medical Education, Ministry of Interior and the Red Crescent Society have resulted in a series of health-related programmes, including mental health. Following a comprehensive study [26], which determined the impact of earthquakes on mental health and a needs assessment of survivors and rescuers, a national programme of mental health interventions in natural disasters was drafted, educational material was prepared and the first groups of rescuers were trained accordingly [27-29]. Large-scale implementation of the project is expected to happen in the coming years.

Primary prevention

Suicide prevention is being studied in four provinces. In 1999 and 2000, two workshops were held in order to organize the programme. Thereafter, 15 more workshops were run in the periphery. Educational material was prepared for all levels and the training was carried out. The pilot project is to be evaluated for the first time in the near future.

Drug-dependence prevention was mentioned earlier. In the future, more projects concerning primary prevention of mental retardation and epilepsy are needed, although it has been partly covered by general health preventive measures.

Preparation of a mental health act

Although there are different laws and regulations regarding insanity and related problems [30], there is a need for a separate mental health act through which the rights of psychiatric patients and their care-givers can be more clearly defined. Already, a comprehensive review of mental health acts worldwide and particularly in Islamic countries has been carried out by a multi-

disciplinary team, including experts from the judicial system. The first draft of an act is being finalized, but time is needed to make amendments and then lobby the legislative system to have it enacted.

Cost studies

Health economics in the field of mental health is gaining more importance in developing countries. It would be wise to study current mental health programmes in terms of cost-benefit and cost-effective measures and to implement such evaluations in future planning.

International cooperation

Since the 1940s and 1950s, the Islamic Republic of Iran has been involved in both international and regional cooperation in the field of modern psychiatry and mental health. In the early 1950s the first WHO consultant visited the country [32] and reported that the few services available were in need of development. The World Psychiatric Association held a regional meeting in Teheran in the early 1970s. Also during this decade the Society for Rehabilitation of the Disabled had extensive international collaborations with WHO and a number of universities. Furthermore, many Iranian psychiatrists went to study in different countries in Europe and North America.

In the 1980s, an international congress on psychiatry was held in Shiraz by the Iranian Psychiatric Association. In 1985, the WHO Regional Adviser for Mental Health for the Eastern Mediterranean made a visit to the country during which the draft of the Iranian National Mental Health Programme was prepared by a National Committee. Since then the Islamic Republic of Iran has been an active participant of all the regional and some global activities for the development of mental health. In 1987, an inter-country meeting on the development of

mental health programmes was held in Isfahan [33]. Three other intercountry meetings on needs assessment (1998), suicide prevention (2000), and provision of essential drugs (2000) have been held in Teheran. The Iranian National Mental Health Programme has twice been evaluated by WHO expert teams and is now internationally recognized as one of the more successful experiences in integration of mental health within PHC.

In recent years, Iranian mental health experts have participated in a number of activities sponsored by WHO in different countries of the Region and, along with their colleagues in those countries, have been instrumental in the development of mental health. The most important activity of this kind was a 3-month diploma course

held in Afghanistan [34] in 1996. Experts from the Islamic Republic of Iran and Pakistan ran the course, which trained 10 physicians in Afghanistan. Similar activities have been carried out in the Republic of Yemen and Sudan.

The last of these was the consultancy to Sudan in 2001 of our sadly deceased co-author, Dr Davoud Shahmohammadi. We would like his respected name to be the finishing point of this paper. He, more than anybody else, was instrumental in the implementation of the Iranian Mental Health Programme and we remember with deep affection his sensitivity, humanity and dedication. To the memory of our dear friend, brother and colleague: Dr Davoud Shahmohammadi.

References

1. Shadpour K. Primary health care networks in the Islamic Republic of Iran. *Eastern Mediterranean health journal*, 2000, 6(4):822-5.
2. Shadpour K. *Primary health care in the Islamic Republic of Iran. UNICEF publication 1994 - P. 68-69*
3. *Iran statistical yearbook - 1998*. Teheran, Statistical Centre of Iran, 1999.
4. Shadpour K. *The PHC experience in Iran*. Teheran, United Nations Children's Fund, 1994.
5. Mehrabi F et al. Mental health in Iran. In: Al-Issa I, ed. *Al-Junun: mental illness in the Islamic world*. Madison, International Universities Press, 1999:139-62.
6. Shahmohammadi D. *Integration of mental health into PHC: a decade of experience*. Paper presented at the XIth World Congress of Psychiatry, Hamburg, 6-11 August, 1999.
7. *The world health report 2000. Mental health: new understanding, new hope*. Geneva, World Health Organization, 2001:86.
8. Ghobari B, Bolhari J. The current state of medical psychology in Islamic Republic of Iran. *Journal of clinical psychology in medical settings*, 2001, 8(1):39-43.
9. *Draft of the National Programme of Mental Health in Iran*. Teheran, Ministry of Health and Medical Education, 1987.
10. Shahmohammadi D. *Comprehensive report of research project on the integration of mental health in primary health care in Shahr-e-Kord villages*. Teheran, Ministry of Health and Medical Education, 1990.
11. Hassanzadeh M. Evaluation of integration of mental health into Shahreza City health centres. *Daru va darman*, 1992, 10(110):15-20.

12. Hosseini SA et al. A one-year report of the country's mental health programme in a 22 000 population region of northeast Iran. *Medical journal of the Islamic Republic of Iran*, 1993, 7(3):151-6.
13. Bolhari J, Mohit A. Integration of mental health into primary health care in Hashtgerd. *Andeeshe va raftar*, 1995, 2(1):16-24.
14. Bagheri Yazdi SA, et al. Evaluation of function of auxiliary health workers (*behvarz*) and health volunteers in mental health care delivery in the framework of PHS system in Brojen City, Chaharmahal and Bakhtiari province. *Hakim*. 2001. 4(2):100-10
15. Mohit A, Shahmohammadi D, Bolhari J. Independent evaluation of Iranian national mental health programme. *Andeeshe va raftar*, 1998, 3(3):4-16.
16. Mohit A. Mental health in Teheran in the context of the national mental health programme of the Islamic Republic of Iran. In: Goldberg D, Thornicroft F, eds. *Mental health in our future cities*. London, Psychology Press, 1998:217-38
17. Bina M, Bolhari J, Bagheri Yazdi SA. Evaluation of the efficiency of general practitioners in Iranian rural mental health centers in 1995. *Teb va Tazkie*, 1997, 7(25):7-12
18. Shahmohammadi D, Bayanzadeh SA, Ehsanmanesh M. Pathway to treatment of psychiatric patients in psychiatric centres of the country. *Andeeshe va raftar*, 1998, 3(4):4-14.
19. Omidvari S, Bina M, Yasamy MT. Pre-hospitalization pathways among psychiatric patients in Imam Hussain Hospital in 1999. *Andeesheh va raftar*, 2000, 6(2):4-12.
20. Yasamy MT. *Achievements and areas of need in mental health in Islamic Republic of Iran*. Paper presented at the thematic conference of the East Mediterranean Region, Kaslik, Lebanon, 1998.
21. Naghavi M. *Executive project for attracting community participation through female health volunteers*. Teheran, Ministry of Health and Medical Education, 1996.
22. Malakuti SK et al. The role of continuous care team on outpatient treatment of chronic psychiatric patients. *Andeeshe va raftar*, 1999, 4(3):5-13.
23. Mohit A. Mental health in Teheran in the context of the national mental health programme of Iran. In: Goldberg D, Thornicroft, eds. *Mental health in our future cities*. London, Psychology Press, 1998:217-81.
24. Bina M, Yasamy MT, Hajjaran M. Implementation of school mental health in the Islamic Republic of Iran — a pilot project. *Paper presented at the XIth World Congress of Psychiatry, Hamburg, 6-11 August, 1999*.
25. *Comprehensive drug control programme for the Islamic Republic of Iran*. Teheran, Drug Control Headquarters, 2000.
26. *Country profile: Islamic Republic of Iran*. Teheran, United Nations Office for Drug Control and Crime Prevention, 2001.
27. Yasamy MT et al. Determination of appropriate measures of mental health service delivery to natural disaster survivors. *Research report*. Teheran, Ministry of Health and Medical Education, Ministry of the Interior, Shahid Beheshti University of Medical Sciences, and Red Crescent Society, 1998.
28. Yasamy MT et al. Mental health in natural disasters. Educational book for medical and health worker specialists. *Teheran, Ministry of Health and Medical Education, 2000*.

29. Yasamy MT et al. Mental health in natural disasters. Educational book for rescuers. Teheran, Ministry of Health and Medical Education, 2000.
30. Yasamy MT et al. Mental health in natural disasters. Educational book for executive managers. Teheran, Ministry of Health and Medical Education, 2000.
31. Asgharzadeh-Amin S, Shahmohammadi D. Existing laws concerning mental health in Iran. *Andeeshe va raftar*, 1999, 4(4):71-96.
32. Kraus G. Report of a mental health survey in the Islamic Republic of Iran. Alexandria, WHO Regional Office for the Eastern Mediterranean, 1954 (EM/MENT/7).
33. Report of the introductory meeting on the progress of national mental health programmes, Isfahan, the Islamic Republic of Iran, 12-16 March 1989. Alexandria, WHO Regional Office for the Eastern Mediterranean, 1989 (WHO-EM/MENT/115-E).
34. Mohit A et al. Mental health manpower development in Afghanistan: a report on a training course for primary health care physicians. *Eastern Mediterranean health journal*, 1999, 5(2):373-7.

The effectiveness of mental health services in primary care: the view from the developing world

This document reviews and evaluates the effectiveness of mental health programmes in primary health care in the developing countries. Its publication is timely because the World Health Organization is currently focusing on the importance of integrating mental health into primary health care. One of the ten recommendations in the *World Health Report 2001* on mental illness stresses the provision of treatment in primary health care. WHO is also re-emphasizing the need to have good evidence for what works in health care, in order to build sound and effective policies and programmes for the health services. This is particularly important in countries with limited resources for health/mental health care where it is vital that they should get good value for the money spent. This document is available free on the Internet at: http://www.who.int/mental_health/Publication_Pages/Pubs_General.htm