Integrating Mental Health into Primary Care An Integrative Collaborative Primary Care Model – The Jamaican Experience

WD Abel¹, M Richards-Henry², EG Wright², D Eldemire-Shearer¹

ABSTRACT

Many low-income countries face enormous constraints which limit the development of mental health services. The World Health Organization (WHO) made ten recommendations to facilitate the development of mental health services; among these is the integration of mental health into primary care. Jamaica developed an integrated collaborative system of mental health care through the adoption of a primary care model which is central to the delivery of mental health care. This model emphasized the integration of mental health into primary care and, in expanding the role of the mental health team, made it more collaborative. Mental health services were mainstreamed into primary care and several strategies facilitated this process. These included the training of staff in primary care, the availability of psychotropic medication in primary care facilities and the provision of mental health beds at the community level. Furthermore, focus was placed on human development and the involvement of consumers in the policy development and service delivery. This has resulted in a reduction in the population of the mental health hospital and expansion in the community mental health services.

Keywords: Integration primary care, Jamaica, mental health

Integrar la Salud Mental en la Atención Primaria Un Modelo de Integracional de la Atención Primaria – la Experiencia Jamaicana WD Abel¹, M Richards-Henry², EG Wright², D Eldemire-Shearer

RESUMEN

Muchos países de bajo ingreso enfrentan enormes restricciones que limitan el desarrollo de los servicios de salud mental. La Organización Mundial de la Salud (OMS) hizo diez recomendaciones para facilitar el desarrollo de los servicios para la salud mental. Entre estas recomendaciones, se encuentra la integración de la salud mental a la atención primaria. Jamaica desarrolló un sistema integracional colaborativo de atención a la salud mental a través de la adopción de un modelo de atención primaria de crucial importancia para el ofrecimiento del cuidado de salud mental. Este modelo puso el énfasis en la integración de salud mental en la atención primaria, y la expansión del papel del equipo de la salud mental, haciéndolo más colaborativo. Los servicios de salud mental fueron introducidos de manera regular en la atención primaria, y se trazaron varias estrategias a fin de facilitar este proceso. Éstas incluyeron el entrenamiento de personal en atención primaria, la disponibilidad de medicamentos psicotrópicos en los centros de atención primaria, y suministro de camas para la atención a la salud mental a nivel comunitario. Además, se puso énfasis en el desarrollo humano y la involucración de los consumidores en el desarrollo de políticas y el ofrecimiento de servicios. Esto ha traído consigo una reducción en la población hospitalaria atendida por salud mental, en tanto que por otra parte, ha producido una expansión en los servicios de salud mental en la comunidad.

Palabras claves: Atención primaria integrativa, integración el cuidado primario, Jamaica, salud mental

West Indian Med J 2011; 60 (4): 483

From: ¹Department of Community Health and Psychiatry, The University of the West Indies, Kingston 7, Jamaica and ²Ministry of Health, Jamaica.

Correspondence: Dr W Abel, Department of Community Health and Psychiatry, The University of the West Indies, Kingston 7, Jamaica. E-mail: wendelabel@hotmail.com

INTRODUCTION

Non-communicable diseases (NCDs) have become the major cause of disease burden worldwide and, of these, neuropsychiatric disorders account for approximately 25% of the global burden of disease, based on disability-adjusted life years (DALYs). Mental disorders such as depression, bipolar disorder, substance and alcohol abuse disorders and schizophrenia are among the neuropsychiatric conditions that contribute significantly to DALYs. It is projected that by the year 2020, depression will become the major cause of disease burden in high-income countries (1).

An estimated 450 million of the world's population have a mental disorder. In low-income and middle-income countries (LAMICs) where the expenditure on mental health is less than 1% of health budget, less than 50% of persons receive adequate mental healthcare (2).

Given the prevalence of mental disorders and the high burden, on one hand, and the limited access to treatment, on the other, there exists a large treatment gap for mental disorders worldwide (3). Increasingly, many LAMICs face resource constraints which limit the development of appropriate mental health service systems to bridge the treatment gap in mental health (4).

In 2001, the World Health Organization (WHO) made ten recommendations to reduce the treatment gap in mental health. The integration of mental health services into primary healthcare is one of the ten specific strategies identified (5).

The Declaration of Alma-Ata, 1978, resulted in the global adoption of primary healthcare as a model for effective, accessible, affordable and integrated healthcare (6, 7).

The literature identifies primary health as an important component of the healthcare delivery system as it is the first point of contact for patients and provides care as close as possible to where people live and work but does not require the same expenditure as hospital care. Recently, building on the success of primary healthcare and the changing world environment, WHO has been driving primary healthcare renewal (8).

A burgeoning literature has evolved over the last four decades on the integration of mental health into primary healthcare, which has been shown to be the most desirable strategy to extend mental health services in LAMICS and to bridge the treatment gap (5).

Unfortunately, today, 30 years after the adoption of primary healthcare, mental health services still exist as a single channel, parallel system of service and separated from mainstream health services with the majority of patients treated in large mental hospitals far removed from where they reside (9, 10). Arguably, the integration of mental health into primary healthcare results in easier and improved access to care and the treatment of patients within their community. It also results in a reduction in the risk of separation from families and a reduction in human rights violation associated with involuntary, indefinite admission to mental hospitals. Integrated mental health results in stigma reduction, better treatment of co-morbid disorders, improved prevention and detection of mental disorders, improved treatment and follow-up, better health outcomes and better utilization of limited human resources (9). Furthermore, the integration of mental health into primary care can effectively address the inequalities and disparities associated with mental healthcare especially in LAMICS (11, 12).

In Jamaica, efforts to integrate mental health into primary care have resulted in the "Integrated Collaborative Model of Care". This paper discusses the strategies implemented in Jamaica to facilitate the integration of mental health services; it highlights the major policy perspectives and the strategies implemented to facilitate integration.

METHODS

The principal source of data was the World Health Organization Assessment Instrument for Mental Health Systems (WHO AIMS) which is used to evaluate mental health systems (13). Other data sources included service utilization data and information gleaned from peer-reviewed journals.

Country profile – Jamaica

Jamaica is the third largest island in the Caribbean. It is located 150 km south of Cuba and 160 km west of Haiti. The population is approximately 2.6 million with 52% of the population living in urban centres. The country is listed as a low middle-income country and is undergoing transitional changes in demography and epidemiology. The annual population growth rate is 0.6%, the median age of the population is 24 years and 40% of the population falls under 15 years. The over 60-year old group represents the fastest growing segment of the population. The crude death rate is 5.5 per 1000 and the average life expectancy is 72 and 75 years for men and women respectively (14).

Jamaica's healthcare system is composed of two sectors – the public sector, which is fully financed by government through tax revenues and all Jamaicans therefore have access to free healthcare, and the private sector which is financed through insurance or fee-for-service. The publichealth services are delivered through 375 health centres and 24 hospitals. About 90% of the population resides within a ten-mile access to a health centre and this allows for both wide access and equity in service. Public hospitals account for 95% of hospital beds. Approximately 60% of doctors are in private practice.

Mental health context

Epidemiological studies indicate that the incidence of schizophrenia in Jamaica is 2-3% which is consistent with that reported in the literature (15). The suicide rate is approximately 2.2/100 000 and is reported as one of the lowest in the world and below the global suicide rate of $6.55/100\ 000\ (16,\ 17)$. A community survey conducted by

Wilks *et al* reported that 49% of respondents in a community survey reported "feeling down or depressed" (18). Studies done in Jamaica indicate that depression is highly co-morbid with other medical conditions (19, 20). The estimated rate of DALYs is 3884.76 per 100 000 in comparison with 2924 per 100 000 in high income countries (17). Studies on stigma indicate that respondents with family members who had mental illness displayed less stigma to mental illness (21).

Adoption of the primary healthcare model

Jamaica has developed an exemplary primary healthcare system, following the adoption of the primary healthcare model in 1978. Primary care services are currently delivered through the public sector and private sector – general practice.

Attempts to integrate most vertical services, including mental health services, began in the 1970s. Unfortunately, up until 1992, although mental health services were offered at the community level, these services were separated from physical healthcare (22). Over the past two decades, greater efforts were made to scale-up services and integrate mental health into primary care.

Financing of mental health

The government's spending on health is 5.3% of gross domestic product (GDP) and 6% of the health budget is spent on mental health (14). The expenditure on mental health in Jamaica is encouraging when compared with the median expenditure for high-income countries of 3% and low-income countries of 2.1% (16).

Mental health policy

Today, mental health is a priority programme in Jamaica and several policy perspectives have shaped the mental health reform process in Jamaica. The first documented report by Richman, in 1963, recommended the development of community mental health services and a reduction in the size of the mental hospital. Successive mental health policies focussed on the expansion of the community mental health services, decentralisation of mental health services and integration in primary healthcare. The mental policy was last revised in 2009, which further emphasized integration of mental health services into primary care, human resource development, protection of human rights and the development of services for vulnerable population such as children and adolescents, the elderly and homeless mentally ill people (23).

Mental health legislation

The earliest mental health legislation (The Lunacy Law of 1873) was enacted after the establishment of the Lunatic Asylum in 1862 which focussed on long-term custodialization of mentally ill people. The Lunacy Asylum was later renamed The Mental Hospital and there was a revision of the law to the Mental Hospital Act [1930] (24).

The Mental Hospital Act (1930) was amended in 1974 to create the Mental Health Act (1974) which provided the legal framework for treating patients in the community and to establish the roles of mental health workers in the community. This cleared the way for the treatment of patients outside of the mental hospital in a wide range of community settings. Amendments were made to the Act in 1997 to further extend treatment within the community. The act is currently under review in order to make provisions for human rights, equity and greater consumer involvement. The result of this shift in policy and supporting legislation has resulted in the expansion in treatment at the community level.

Co-location of mental health professionals

Up to 1964, the focus of treatment of persons living with mental illness was the mental health hospital. In that year, the first batch of community mental health nurses (mental health officers) were trained and subsequently deployed to work in health centres and parish hospitals. The initial attempts to integrate mental health involved the co-location of mental health services in health centres and hospitals. These services existed as a separate, vertical system as they were an extension of the mental hospital services. Notwithstanding, this shift in service to the community allowed for greater level of referrals, enhanced communication and greater consultation among health personnel when compared to the previously existing situation in which mental health services were based exclusively in the mental hospital.

The establishment of a mental health unit

In 1992, the Ministry of Health established a mental health unit headed by a director. The functions of the Mental Health Unit include the formulation of policy, mental health promotion, programme development, the establishment of standards, monitoring, research, coordination and integration of services.

Appointment of a mental health director

Critical to any successful integration programme is a committed and dynamic leadership and this has been borne out in the Jamaican experience. Having a "champion" such as a director of mental health services at the level of the Ministry of Health has made a significant impact on the development of mental health services. The experience in Jamaica has shown that the appointment of such an individual has resulted in mental health being given priority attention at the level of the health ministry. The director has played a critical role in policy development, programme implementation and steering the process of integration. In addition, mental health has been placed on the priority agenda for funding from local and international agencies.

Decentralization of healthcare services

In 2000, four regional health authorities were established to integrate primary and secondary healthcare services, improve

efficiency and facilitate decision-making at the local level. The process of decentralization has resulted in the full integration of mental health into regional health policies and into the regional health management system. This has facilitated better collaboration and coordination at all levels of the health system and it has resulted in the breakdown of the silos between mental health and other medical services, thus facilitating the process of integration.

Mainstreaming mental health into primary care

The early process of integration of services involved the colocation of mental health services in primary care settings resulting in mental health operating as a vertical service. In 2006, all mental health staff working in the community became fully absorbed into the regional health services, culminating in the decentralization of mental health services and the mainstreaming of mental health into the general health services. Today, integrated mental health services are in all 375 health centres and in the 23 community-based hospitals. Mental health staff is assigned to all Type II, III, IV and V health centres. Specialized mental health services are delivered in 30% of these health centres and all community hospitals.



Figure: Health facilities providing mental health services

The training of staff working in primary care

All staff working in primary care health facilities are trained in the early recognition, early intervention and referral of common mental disorders and are thus able to undertake mental-health tasks commensurate with their roles and function such as early detection, early intervention and referral. At the community level, community health workers have been identified as critical gatekeepers in the primary care system. They have been trained to identify common mental disorders and refer patients for treatment. They also play a critical role in identifying and contacting persons who default from follow-up. Public health nurses and midwives working in antenatal and postnatal clinics are also trained to detect mental disorders in mothers and to refer appropriately. Primary care practitioners such as medical officers or nurse practitioners diagnose and treat mental disorders as part of their primary care function. Referral to the mental health services may be made as needed. The mental health specialist working in these facilities may include psychiatrists, specialist mental health nurses, psychologists and social workers. They work both in secondary and primary care facilities apart from their direct involvement in treating mentally ill people. The role of the mental health team is both collaborative and consultative. The primary care staff can turn to the mental health team for referral, support, consultation and supervision.

Depression screening

Depression affects 5–9% of the adult population in the United States of America (USA). It is highly co-morbid with chronic diseases and has major socio-economic impact, contributing to disability, absenteeism and decreased productivity. The improvement in the detection and treatment of depression in primary care has been a public health priority for decades (24–26).

In 1994, depression screening was introduced as part of the systematic integration of primary healthcare services. About 80% of primary healthcare staff was trained in the screening and early recognition, early intervention and referral of patients with depression. The process is further strengthened by the system of on-going communication and collaboration with the mental health team working in primary care.

There are over 2000 general practitioners working both in the private and public sector. There, doctors are often the first contact for treatment and are seen as critical gatekeepers of the mental health services. General practitioners have been trained in the early detection and treatment of the common mental disorders including depression. Additionally, general practitioners are required to participate in continuing medical education and it is estimated that they receive an average of four sessions in mental health per year.

Availability of psychotropic medication

Effective treatment exists for the treatment of mental disorders. Notwithstanding, the proportion of persons in LAMICS with access to medication remains comparatively low, thus adding to the large treatment gap (3). The World Health Organization has included the availability of psychotropic medication among the recommendations to bridge the treatment gap. Access to more effective psychotropic medication in the primary care setting is crucial to the integration process (28). Jamaica has an essential medicine list which includes all categories of psychotropics including secondgeneration antipsychotics and antidepressant drugs. All primary healthcare facilities have at least one pharmaceutical Mental health beds

Jamaica has 24 general hospitals and all these hospitals provide emergency psychiatric care in their emergency rooms. Almost all district general hospitals have assigned beds on the medical wards for the treatment of the mentally ill. The treatment of mentally ill people on medical wards is unique to Jamaica and the Caribbean. In Jamaica, psychiatric admissions to a general medical ward account for 35% of all psychiatric admissions. Research done in Jamaica has shown that mentally ill persons treated on open medical wards have superior outcomes as compared to those treated in a discrete psychiatric unit or in a mental hospital (29, 30).

mary care settings have been trained in the use of the manual.

These manuals are available in primary care facilities.

In addition to beds on general medical wards, there are two secured psychiatric units within large multidisciplinary hospitals. These units serve as major referral centres for persons requiring intensive psychiatric care. These facilities account for 32 beds/100 000 and 23% of all psychiatric admissions in Jamaica.

Beds in mental hospital

Jamaica has one mental health hospital, Bellevue Hospital, which was established in 1872. Over the past 50 years, there has been a gradual reduction in the population of the mental health hospital; the population currently stands at 800, accounting for 3.2 beds/100 000 (14). Admissions to the mental health hospital account for 42% of all admissions in Jamaica. Like many mental health hospitals globally, it exists as a publicly funded facility to house chronic patients and persons who require supervised housing; the latter group accounts for two-thirds of its population.

Table 1:	Psychiatric admissions	(2006-	-2010)
----------	------------------------	--------	--------

	2006	2007	2008	2009	2010		% Total Admission
Facility							
Medical wards	1100	874	965	1087	1045	1016	35%
Secured unit	725	597	672	684	761	688	23%
Mental hospital	1037	1137	1232	1376	1435	1243	42%
TOTAL	2872	2608	2869	3147	3241	2947	

Human resources

At the regional level, the mental health team is headed by a regional psychiatrist. The role of the regional psychiatrist includes administration, policy development and management of patients and, most importantly, the psychiatrist's role is extended to that of providing consultation to physicians, other mental health professionals, social agencies and the criminal justice system. The core team includes trained psychiatric nurses, referred to as mental health officers, who form the backbone of the mental health services. The community psychiatric nurses are based in heath centres and they work in outpatient clinics where their major role is that of medication monitoring. They are also members of the mobile community mental health teams involved in outreach and crisis response, home visitation and case management. Jamaica has 1.6 psychiatrists per 100 000 (14) compared to the global median of 1.2, and 8 psychiatric nurses per 100 000 compared to the global median of 2 (26).

Human resource development

Mental health is a labour intensive field and it relies heavily on personnel. The shortage of mental health personnel has been identified as a major barrier to the improvement of mental health services (31–33).

In 1964, the first local training programmes were developed with the support of the Pan American Health Organization (PAHO) to train community mental health nurses to deliver services at the community level. These nurses now form the backbone of the community mental health services in Jamaica. Their function includes health promotion, medication management, crisis response and home visitation. In addition to these primary care tasks, these nurses function in community hospitals where they work alongside other members of the health team. In 1972, The University of the West Indies introduced a postgraduate training programme (The DM in Psychiatry) for the training of psychiatrists.

The training of doctors

In recognition of the critical role played by the general practitioner in the management of mental disorders, mental health is an important part of the undergraduate curriculum at The University of the West Indies. Medical students are exposed to mental health in four out of five years of the medical curriculum. The curriculum was redesigned in 2001 to place greater emphasis on mental health and to ensure that medical undergraduates have competencies in diagnosing and treating common mental disorders in a primary care setting.

The first and second year includes basic concepts in psychiatry. In the third year, students do a week and a half rotation which is part of a combined child health, community heath and psychiatry clerkship. In this rotation, the emphasis is on working with families and studying the occurrence of mental illness in the context of the family and the effects of mental disorders on the family. The placing of the rotation as part of community health further reinforces the integration in the minds of the medical students and consolidates the community approach to mental health. The fourth year of the clerkship is a five-week clinical clerkship in which students develop competencies in managing common mental disorders both in hospitals and primary care settings.

Doctors pursuing the postgraduate Family Medicine and Emergency Medicine are required to do a rotation in Psychiatry.

All nurses trained in the general nursing programme do a rotation in psychiatry and there is a specialist psychiatric nurse practitioner programme.

Training of the police

About 16% of patients seen in the community mental health services are referred by the criminal justice system. The police are recognized as important gatekeepers of the mental health services. There has been an ongoing training of police in the understanding and detecting of mental disorders.

Development of guidelines and standards

In fulfilment of its strategic mental health objectives, a system of quality assurance and quality audit was introduced. Guidelines and standards were developed for the delivery of mental health services and regular audits were conducted to evaluate mental healthcare to assure the quality of mental healthcare, to standardize services and to provide assurance to stakeholders about the quality of provisions and standards of mental health in Jamaica. The information garnered served as a guide for the planning, development, implementation and improvement of mental health services.

Consumer involvement

The emergence and the involvement of consumer groups in the mental health service delivery is a growing phenomenon worldwide (34). More than 12 consumer groups exist in Jamaica and the participation of these groups is fundamental and critical across all dimensions of the mental health-service delivery system in Jamaica. They are involved in policy formulation, review of legislation, service development and delivery and auditing.

CONCLUSION

Despite the limited resources, Jamaica has been able to fully integrate mental health into primary care and has developed an Integrated Collaborative Primary Care model of care. Several initiatives have facilitated this; these include, the development of policy and appropriate legislation, the reduction in the size of the mental health hospital, the expansion of community mental health services, the availability of drugs at the community level, mental health promotion and stigma reduction programmes and the emphasis on the training of mental health professionals. Notwithstanding these achievements, greater efforts are needed to phase out the mental health hospital which currently exists as a facility for chronic patients and the homeless; to develop human resource and to expand the range of services at the community level.

REFERENCES

- Murray CJL, Lopez AD. The Global Burden of Disease: a comprehensive assessment of mortality and disability from diseases and injuries, and risk factors in 1990 and projected to 2020. Cambridge: Harvard University Press; 1996.
- 2. The bare facts. Geneva: World Health Organization; 2008.
- Kohn R, Saxena S, Levav I, Saraceno B. The treatment gap in mental healthcare. Bull World Health Organ 2004; 82: 858–66. (Epub 2004 Dec 14).
- Mental disorders in Latin America and the Caribbean: a public health priority. Rev Panam Salud Publica 2005; 18: 229–40.
- WHO. World health report 2001. Mental health: new understanding, new hope. Geneva, Switzerland: World Health Organization; 2001.
- WHO. World health report 2008. Primary Healthcare Now more than ever. Geneva, Switzerland: World Health Organization; 2008.
- WHO. Declaration of Alma-Ata. International Conference on Primary Healthcare. Alma-Ata, USSR; September 6–12, 1978.
- Walley J, Lawn JE, Tinker A, de Francisco A, Chopra M, Rudan I et al. Primary healthcare: making Alma-Ata a reality. Lancet 2008; 372: 1001–7.
- Funk M, Saraceno B, Drew N, Faydi E. Integrating mental health into primary healthcare. Mental Health Fam Med 2008; 5: 5–8.
- Bhana A, Petersen I, Baillie KL, Flisher AJ. The Mhapp Programme Consortium. Implementing the World Health Report 2001 recommendations for integrating mental health into primary care: a situation analysis of three African countries: Ghana, South Africa and Uganda. Int Rev Psychiatry 2010; 22: 599–610.
- Mwape L, Sikwese A, Kapungwe A, Mwanza J, Fisher A, Lund C et al. Integrating mental health in primary care in Zambia: a care provider's perspective. Intel J Ment Health System 2010; 4: 21.
- Beaglehole R, Epping-Jordan J, Patel V, Chopra M, Ebrahim S, Kidd M et al. Improving the prevention and management of chronic disease in low-income and middle- income countries: a priority for primary health. Lancet 2008; **372**: 940–9.
- Keste D, Lazeri L, Demi N, Severoni S, Lora A, Saxena S. Mental health system and services in Albania. Epidemiol Psychiat Soc 2006; 15: 194–201.
- WHO–AIMS Report on Mental Health Systems in Jamaica. Kingston: WHO/Ministry of Health; 2009.
- Hickling FW, Rodgers-Johnson P. The incidence of first contact schizophrenia in Jamaica. British Journal of Psychiatry 1995; 167: 193-6.
- Abel WD, Bourne PA, Hamil HK, Thompson EM, Martin JS, Gion RC et al. A public health and suicide risk in Jamaica from 2002 to 2006. North Am J Med Sci 2009; 1: 142–7.
- Jacob KS, Sharan P, Mirza I, Cumbrera-Garrido M, Seedat S, Mari JJ et al. Mental health systems in countries: where are we now? Lancet 2007; 370: 1061–77.
- Wilks R, Younger N, Ashley D, Ward E, Mullings J, Forrester TE. The occurrence of depressive symptoms and the association with diabetes mellitus and hypertension in Jamaica. West Indian Med J 2002; 51 (Suppl 4): 15.
- Clarke TR, Gibson RC, Barrow G, Abel WD, Barton EN. Depression among persons attending a HIV/AIDS outpatient clinic in Kingston, Jamaica. West Indian Med J 2010; 59: 369–73.
- Asnani MR, Fraser R, Lewis NA, Reid ME. Depression and loneliness in Jamaicans with Sickle Cell Disease. BMC Psychiatry 2010; 10: 40.
- Gibson RC, Abel WD, White S, Hickling FW. Internalizing stigma associated with mental illness: findings from a general population survey in Jamaica. Rev Panam Salud Publica 2008; 23: 26–33.
- McCaw Binns A, Moody CO. The development of primary healthcare in Jamaica. West Indian Med J 2001; (50 Suppl 4): 6–10.
- 23. Forging Ahead. The Strategic Mental Health Plan (2008–2012). Kingston: Ministry of Health Jamaica; 2008.
- 24. Roberston-Hickling H, Hickling FW. The need for mental health partnerships in Jamaica. Social and Economic Studies 2002; **51:** 3.

- Nasisr LS, Al-Qutob R. Barriers to the diagnosis and treatment of depression in Jordan. A nationwide qualitative study. J Am Board Fam Pract 2005; 18: 125–31.
- 26. Mental Health in Primary Care: Enhancing Treatment and Promoting Mental Health. World Federation for Mental Health; 2009.
- Depression in Primary Care: Treatment of Major Depression. Vol 2. Rockville, MD: Agency for Healthcare Policy and Research, US Department of Health and Human Services; 1993. Publication AHCPR 93–0511.
- Gureje O, Alem A. Mental health policy development in Africa. Bulletin of the World Health Organization 2000; 78: 475–82.
- Hickling FW. Treatment of Acute Schizophrenia in Open General Medical Wards in Jamaica. Psychiatric Services 2000; 51: 659–63.

- Hickling FW, Abel W, Garner P. Open medical wards versus specialist psychiatric units for acute psychoses. Cochrane Database Systematic Review 2007; (4): CD003290.
- Alarcon RD, Aguilar-Gaxiola SA. Mental health policy developments in Latin America. Bulletin of the World Health Organization 2000; 78: 483–90.
- Saxena S, Thornicroft G, Knapp M, Whiteford H. Resources for mental health: scarcity, inequity and insufficiency. Lancet 2007; 370: 878–89.
- Kilonzo GP, Simmons N. Development of mental health services in Tanzania: a reappraisal for the future. Soc Sci Med 1998; 47: 419–28.
- Barret NM, Pratt CW, Basto PM, Gill KJ. Integrating consumer providers into a service delivery system. Psychiatric Rehabilitation Skills 2000; 4: 82–104.