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The Development of Mental Health Services in Sub-Saharan Africa: The Case of Rwanda*

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This paper considers several aspects of the evolution, organization and current status of the mental health system of Rwanda. The centerpiece of the Rwandan mental health system is the neuropsychiatric hospital in Ndera. Resource constraints preclude development of an extensive system of specialty mental health care. The World Health Organization has proposed that mental health services can best be delivered in developing countries through decentralization and integration with primary health care services. The accomplishments and problems encountered in implementing this model in Rwanda are described and, based on this experience, some recommendations are offered for other developing countries.

*This paper is adapted from, Gatarayiha, Froduald, MD *Evolution of Psychiatric Care in Rwanda*. Unpublished specialist thesis. Brussels: Department of Psychiatry, Faculty of Medicine, Free University of Brussels, 1989. Requests for reprints to: Morton O. Wagenfeld, PhD, Sociology Department, Western Michigan University, Kalamazoo, MI 49007.

This paper considers several aspects of the organization of the mental health system of Rwanda. Very little data are available in English on this nation. Some recent articles that describe its health and mental health problems are: Baro (1990), and Blanc (1984). The World Health Organization publishes reports on mental health in Africa (WHO, 1977). Any mental health system is a reflection of historic developments, economic conditions and societal values, and needs to be understood in that context. As background, then, we consider some of these factors.

Rwanda is a small, landlocked country with an area of 10,169 square miles, of which 7,229 square miles are usable. It is located in the heart of Africa with Zaire to the west, Burundi to the south, Uganda to the north, and Tanzania to the east. It enjoys a mild climate, with an average temperature of 64°F. Rwanda's soil is generally good for agriculture. However, its value is lessened by erosion, small parcelling, and lack of refertilization by farmers.

Economically, the country is one of the most disadvantaged: a charter member of the "Fourth World". According to World Bank statistics, it ranks as the world's 17th poorest country, with a per capita Gross Domestic Product of \$180 per year (Blanc, 1984).

The Rwandan people live in communities that are dispersed over many hills, some of which are not easily accessible. More than 90% of the people live in rural areas. The leading export is coffee, which accounted for nearly 75% of revenue. Other agriculture products and minerals account for the balance of exports.

The land is divided into family farms, which are becoming smaller and smaller because of the increase in population. The reduction of cultivable land and means of production has brought about serious economic problems and malnutrition.

Data from the Agency for International Development (cited in Blanc, 1984) indicates that Rwanda's health indices parallel its economic condition. In 1970, infant mortality was reported as 133/1000 live births and life expectancy at birth is 46 years. In 1978, the leading causes of death for hospitalized patients were: measles, perinatal mortality, gastroenteritis, pneumonia, maternal mortality, other respiratory infections, helminthic infections,

and gastritis. For our purposes, it is important to note the high morbidity and mortality from alcoholism and its complications. The reported statistics fail to show this clearly, since many of the problems are subsumed under the label of gastritis.

Finally, Rwanda is one of the African countries where the incidence of AIDS is reaching alarming proportions and this will particularly test the mental health services. Mental patients are at risk for the disorder, while AIDS may also be a factor in the incidence of mental and neurological disorders (Baro, 1990).

In light of these needs, the annual per capita expenditure for health of \$2.00 is grossly inadequate. There is a severe shortage of health personnel and facilities. There are 5,010 persons/nurses, 54,870 physicians, and 670 hospital beds.

Three ethnic groups make up the Rwandan population. The Hutu represent 89.9% of the people, the Tutsi, 9.8% and the Twa, 0.4%. The predominant religion is Catholic. The level of education has continued to improve. The proportion of students in school has increased from 45.6% in 1978 to 67.4% in 1982.

Conflict between folk (traditional) and scientific (Western) views of the etiology and treatment of mental disorder exists in both developing and industrialized nations. In the latter, the primacy of the scientific model is such that accommodation to, or integration of folk systems is generally not a major concern, except in isolated areas. In a developing nation such as Rwanda, however, the traditional system is quite strong and needs to be a part of the overall system of mental health care.

An extended discussion of the various Rwandan belief systems about mental disorder is outside the scope of this paper. Briefly, in traditional Rwandan culture, an illness is not simply the result of the malfunctioning of an organ. Nor is it injury to an organ from an outside physical cause. It is essentially a break in the harmony of one's life, attributed to either a physical problem created by a magical power, or an intangible force such as God, local spirits, or ancestral spirits. In Rwanda therapeutic rituals are often addressed to *Ryangombe*, a divinity who is the source of peace, love and fertility.

In Western terms, traditional medical practitioners employ a holistic approach, treating the patient's symptoms, as well as looking for causes in the physical and spiritual worlds. Unlike

the Western mechanistic model, no distinction is made between somatic and the psychic factors.

The Rwandan people believe in a superior creator and in ancestral spirits who protect their descendants. In exchange, they must honor the ancestral spirits and fulfill ritual obligations to them. Such obligations must be in the form of community or individual offerings. Evil spirits of the deceased are sources of unhappiness, suffering, failure, and everything bad. Every sickness is the result of ill-omened influences from an enemy or from the spirit of a dead ancestor who is jealous or who wants revenge.

The Rwandan people are convinced that, apart from the spirits, other individuals with whom they live intimately, could inflict disasters upon them and their families. The victims may suspect sorcerers, who are able to work at a distance and who can also get a hold of and use items such as the victim's hair, nails, clothing, etc.

In traditional conception, mental disorder is perceived as the field that confronts transcendental powers or the transcendental part of man. It is the field of invisible battles and forces. It is the spirit world. To enter this world, much preparation and experience are necessary. Dealing with spiritual forces, whether good or bad, brings a possibly fatal shock to the unprepared person.

Mental illness is a sign of the alliance with the spirits, and of the continuation in offspring and groups. The mental patient carries a message of prestige. At the same time, he strengthens the social and familial bond. The cure encourages symbolic circulation. The explanation of mental illness is both social and moral. The evil is caused by another human, ancestor, or spirit. So, the delirium and hallucinations represent an oracle, a message. Above all, when a hallucination uncovers the world of the ancestral spirits, its value as a message is no longer doubted. The psychotic person becomes equal to a fortune teller, and his message is the message of the perspicacious oracle.

Since the explanation of the abnormal condition has to do with the supernatural powers of men and spirits, the traditional society does not consider the mental patient, *per se*, to be a marginal being who should be locked away. The society simply

insists that the person conform to certain rules in the community. As long as he does not disturb family peace or law and order, he may converse with himself. If a patient commits brutal acts, starts a fire or attacks the community, he may be tied up in a room to prevent him from running away or harming himself and others.

The Evolution of Mental Health Services in Rwanda

Pre-Independence

The Rwandan mental health system is a mixture of both Western and non-Western elements. Psychiatry as a science or branch of Western medicine is fairly new in Africa. In the French-speaking regions of the continent, the first mental hospitals were constructed in the 20-year period from 1940-1960. Like the U.S. before World War II, mental patients who were deemed dangerous or who were abandoned and rejected by their families were often incarcerated without any psychiatric care. This is still a fairly common occurrence in many African states.

Given the fact that, according to traditional African belief, mental illness is caused by curses, the evil eye, violations of a taboo, the schemes of evil genies, sorcery, etc., Rwandans find it hard to believe that modern psychiatry, with its different etiologic models, would have much to offer them.

Western medical services were introduced in Rwanda in the 1930s, coterminously with the period of a missionary expansion. The services that were available were very limited, due to lack of equipment and personnel, and were less accessible to the rural population, which makes up the majority of the population.

Rwanda was originally part of German East Africa (along with Tanzania and Burundi). After WW I, it came under Belgian tutelage as Rwanda-Burundi. Before the country's independence, a psychiatric service in Bujumbura (in what was later Burundi), took care of some Rwandan mental patients. When both countries achieved independence in 1959, the patients were sent back to Rwanda. No structure had been planned to receive them, except for the prisons for those who were considered dangerous. The others were abandoned, left to themselves to lead a life of wandering about the hills.

After Independence

To deal with the influx of patients, planning for the construction of a psychiatric institution in Ndera, in the center of the country, began in 1963. The Rwandan government agreed to furnish the land and personnel, and would insure the maintenance of the hospital. The government requested the collaboration of the Brothers of Charity, a Catholic religious order highly regarded in Rwanda for their educational activities, as well as for their wide experience in psychiatry in Belgium. The Brothers responded by creating *ASBL CARAES*, a charitable organization to provide financial support for their activities in developing countries. In addition, the Belgian Ministry of Cooperation contributed to the construction of the hospital.

The hospital opened in 1972, with a capacity of 120 beds. Its first mission was to empty the prisons of psychiatric patients who had been housed there since the independence of Burundi, and to limit itself to serious cases. The Ndera Center rapidly expanded in the face of a growing number of patients. In 1980, after eight years of operation, there were 1,762 hospitalizations and almost 10,000 consultations annually. These cases, mainly acute, were evidence of the extent of psychiatric morbidity in the country. This rapid increase in caseload exceeded the capacity of the available manpower. In addition, the location of the hospital in the center of the country forced patients to travel long distances for treatment. Along with the barrier of distance, there were also difficulties linked to the state of indigence and with the widespread lack of familiarity with the modern medical system. Some patients only came back to the hospital in the event of a relapse. Others were obligated to fall back on traditional treatments.

Because of a lack of adequate resources, it was not possible to create sufficient aftercare and transitional services for patients who experienced difficulties in being reintegrated into society. Some had no family to receive them, while others needed protective housing and long-term care. To do this, a building with 47 beds was constructed next to the hospital. Patients here are helped by a small auxiliary staff. These patients are more or less independent and keep themselves busy with productive activities which are adapted to their conditions.

Another element of the mental health system is the psychiatric section in the Central Prison in Kigali, which houses about 100 patients: 80 percent male. For the most part, these are legal cases and chronic patients who, for lack of space at the hospital, remain in the prison. The patients are visited three times a week by a socio-medical team who, in addition to treating the patients, also discuss the possibility of leaving or transferring from the prison. It is hoped that, in the future, these patients will be transferred to a new residence in the vicinity of the hospital.

Creation of Psychiatric Dispensaries

The rapid increase in patient load at Ndera, along with a chronic resource deficit and the long distances made it clear that the hospital would be unable to respond to all of the country's mental health needs. Distance is important for two reasons: remoteness from services and estrangement from family. To help ease the problem, the creation of psychiatric dispensaries was proposed in two areas: one in the north and one in the south. In 1979, as part of the WHO demonstration program discussed below, a dispensary with 10 beds was created in Butare, in the southern part of the country. At this time, the dispensary for the northern region is still in the planning stage.

The dispensaries were designed essentially to insure outpatient consultations, but were also equipped to hospitalize a few acute care patients whose treatments would last only one or two weeks. The hospital was also confronted with the presence of chronic patients.

Integration of Health and Mental Health Services

While the establishment of the Ndera hospital and the regional psychiatric dispensary were important steps in providing mental health services, they were insufficient to deal with the level of psychiatric morbidity.

It is evident that developing countries do not have the fiscal or personnel resources to provide an extensive specialty mental health system. In addition, the provision of general health services are seen as having a higher priority.

In 1974, the World Health Organization (WHO) suggested that mental health services in developing countries could best be delivered through decentralization and by integrating them with primary health care. In 1975, WHO proposed a demonstration program for developing strategies to provide mental health services in developing nations. These services would be provided by general health personnel. These personnel could not treat all categories of mental disorder. Of necessity, their scope of practice needed to be defined in a limited fashion.

In 1977, the demonstration was undertaken in six African nations: Botswana, Lesotho, Rwanda, Swaziland, Tanzania, and Zambia. A plan of action was developed for each country. In Rwanda, three guiding principles were articulated (a) creation of a network of decentralized mental health services that would be accessible to the entire population; (b) integration of mental health services into the framework of general health; and (c) promotion of prevention.

These principles provided the basis for developing a more formal plan of action. As noted earlier, these principles required a program that would be part of the local health system and also part of a total public health plan.

As noted above, the dispensary in Butare was initiated as a further step in the decentralization of mental health services. In spite of poverty and a lack of resources, the dispensary proved that it was possible to treat patients with a wide range of psychiatric problems and to enable some chronic patients to lead useful lives with their families. Sensitization of the population through the mass media (radio, newspapers) about mental health problems was an important element of the demonstration project.

To obtain an integration and active participation of the population in programs of mental health care, it was necessary to enlist the support of the entire health system—local leaders, civil servants, religious leaders, educators, etc.

Project Coordination

The Rwandan government established a national group for mental health. The group consisted of senior civil servants from

the ministries of education, public health, social affairs, foreign affairs and international cooperation, justice, public works, interior, as well as defense. The group assigned functions for each ministry and developed a plan for interagency cooperation. The secretariat of the national group consisted of the coordinator of WHO programs for Rwanda, the deputy Director General of the Ministry of Public health, and the psychiatrist responsible for implementing the mental health program.

In order to initiate the program, the government of Rwanda requested international help, particularly from France and Belgium. A team from the Catholic University of Leuven's University Psychiatric Center/St. Camillus, under the direction of one of the authors (FB), played a central role in the development and execution of the project, as well as providing all of the research and scientific support.

To begin to integrate mental health with general health care, 12 pilot centers were chosen. This selection took into consideration regional conditions, demographic distribution of the population, local needs, state of existing health centers, and possibilities of sensitization of the population.

Since the needs to be covered concerned the whole of the country, four zones, corresponding to four cardinal points, were chosen to be developed and later to serve as experimental points for the sociomedical units of each region: north, south, east, and west. The 12 pilot centers were supposed to ensure the mental health activities in 107 of 143 of the country's communes.

The intervention phase began in September, 1980. A mobile team from Ndera, including a doctor, medical assistant, nurse, and a social worker made visits once a month to five pilot centers. These mobile teams worked with the center staff. The team's purpose was to evaluate the state of the patients, to prescribe necessary treatments and, if necessary, to transfer patients to the hospital. In addition to these secondary and tertiary interventions, the team engaged in primary prevention by working with families and public authorities to modify pathogenic psychosocial factors. After one year, the number of patients followed at the five pilot centers was 117. At the present time, the hospital is required to arrange quarterly visits in each pilot center and to entrust the health care representatives with

the responsibility of starting up and supervising psychotropic medication regimens.

It could be said that the beginnings were rather quiet. The introduction of this program raised criticism in the medical community. Tasks considered appropriate only for specialists were to be assigned to inexperienced and — presumably — incompetent employees.

The initial resistance was also linked to an inability to understand the operation of such a system, which could disrupt the regular organization of health services by bringing about an overload of work. The lack of interest and negative attitudes regarding mental health progressively evolved. With time, this initial reticence gave way to an acceptance of the idea of incorporating mental health care.

In 1981, seven rural health agents participated in a month-long training course at Ndera devoted to the promotion of mental health and psychiatric treatment. One of the requirements of the course was that the seven had to involve themselves further in the activities of mental health in their own work zones in collaboration with the mobile teams. In the last 10 years, about 150 agents have been trained.

The educational program is centered on characteristic diseases which are described in terms of behavior, and which can be recognized by nondoctors through defining how diseases can be detected, diagnosed, and treated.

Based on the experience of the Ndera Hospital, the education program dealt with ten priority problems — each illustrated by locally-made video tapes: agitation, with or without aggressiveness; withdrawal syndrome, with or without muteness; patients with very bizarre behavior; patients with vague, recurring complaints; behavioral problems due to confinement; infections, surgical intervention, and car accidents; attempted suicides; mental problems as a complication of epilepsy; anxiety and depression; acute mental confusion and insanity; and, anti-social behavior, delinquency, and drug and alcohol abuse.

The hospital in Ndera, as the national reference center, was a determining factor in the organization and coordination of the project as well as the education of needed employees. In this sense, the hospital has grown, not in physical size, but rather

in the infrastructure of polyclinical cares, hospital treatments, lodging facilities, and the possibilities of education, evaluation and retraining.

At the educational level, it has been agreed that instruction in mental health should be integrated into the programs of study in national schools which educate physicians, paramedical personnel, and social workers.

Current State

Currently, 15 health centers have psychiatric consultation services. Up until 1986, the last year for which data are available, more than 6000 patients had been regularly followed up in the outlying areas by rural personnel, accompanied by mobile teams. The treatment is generally prescribed by the doctor and administered by a nurse or other health care representative.

A measure of the program's success is that the opening of the pilot centers greatly reduced the flow of patients to the Ndera Hospital. This is all the more striking, inasmuch as it concerns patients who, for the most part, must follow a treatment plan developed at the hospital. Moreover, those patients who do require hospitalization can be selected in advance by the doctor. This enables a relative stability in the number of patients cared for in the psychiatric department of the hospital.

As the program progressed, local communities became active participants. As a matter of fact, community pressure resulted in the creation of three new pilot centers which had not been part of the original complement.

As Baro (1990) has noted, there is no shortage of problems. For example, it is difficult to obtain supplies of psychotropic drugs. Inadequate training leads to mistakes in treatment. Overcrowding at Ndera results in early discharge of patients, unmet needs and overwork for the staff. Mental health consultation needs to be available in all of the general hospitals, with a few beds set aside for acute cases of serious psychosis.

The Role of Traditional Medicine

As noted earlier, a large part of mental health care is provided by traditional, or folk, healers. The causes of mental

disorder are explained at the time by the patient's personal problems and the cultural representations of the disease linked to beliefs such as witchcraft, misfortune, or evil spirits. This system of interpretation, associated with the power of family ties, accounts for a large portion of the population to acknowledge the illness and to facilitate its treatment in the wake of cultural demonstrations organized for the protection of the whole community. Particularly in rural areas, traditional conceptions of illness and the unity of the group encourage the integration of a person with mental illness.

What helps to insure the persistence of the traditional systems is their adaptability to cultural context and their unquestioned effectiveness. It is not easy to go from a system of traditional representations of illness to understanding the psychopathological processes of Western medicine. An additional difficulty in integrating the two therapeutic systems is that this effort is taking place in a context of social change and cultural instability. The importance of integrating the two systems is underscored by the fact that many of these cultural changes result in social disorganization that can contribute to the increasing incidence of psychiatric difficulties.

To encourage the promotion of traditional medicine, the Rwandan government created an association of healers who met in two dispensaries. In the future, it is anticipated that this program will be extended to mental health.

Some Reflections on the Program:

Accomplishments

One of the cardinal principles enunciated by WHO is that essential basic health care services be available to and accepted by all. The experience in Rwanda demonstrates that mental health services can be provided at the community level by incorporating them into ambulatory general health care and delivering it with multifunction staff — what we have termed "polyvalent" medical personnel. Judging from the number of cases seen in the centers and a decline in the number of patient admissions to Ndera, this mode of service delivery has appeared to be effective and full of promise. By being delivered at the local level,

these services are close to the unserved communities. Access to the programs is easy and administrative formalities are relatively relaxed. In this situation, services are more likely to be accepted by the population. In fact, it is possible to help mental patients and their families without having to invest more than their resources allow and without having to resort to methods which are considered unacceptable to them.

The integration of health and mental health services also allows for diffusion of knowledge about mental disorder to a broader audience of primary care medical and paramedical personnel. It facilitated early diagnosis, treatment, and follow-up care.

When a patient is cared for in a health center, the treatment can begin immediately, hospitalization is frequently avoided, the possibility of preventive detention in a prison is averted, and the family can stay in contact with the patient — something that is not possible when the patient is sent long distances from this home. These centers also take responsibility for after care. Every patient who leaves the neuropsychiatric section of the Ndera Hospital receives a letter of introduction to a dispensary or health center in order to allow regular supervision.

Problems and Limitations

While one can judge the program an overall success, the success is not unqualified. Given the realities of resource constraints, the emphasis on decentralization and integration has had repercussions in other areas. The central role played by the Ndera Hospital in staffing the mobile teams and in providing training for the health workers in the pilot centers has presented an enormous financial, administrative and personnel burden, and placed existing programs at risk. This diffusion of effort has made it difficult to set goals and analyze already completed projects.

During the planning of the project, emphasis was placed on patient care and facilities construction. The education of personnel was neglected. These problems are having an impact on the quality of patient care.

One can speculate on how well the brief training given to the health workers and the lack of an infrastructure in the pilot cen-

ters will relate to the continued ability of the centers to maintain the mental health services. The health workers are a heterogeneous group; ideas about mental illness are not assimilated well by all. The lack of education of the polyvalent workers is also reflected in reported errors in the handling of psychoactive medications and preparing the patient for hospitalization. In this situation, some health workers tend to relegate psychiatric care to a minor position, thus helping to perpetuate its lag behind general medical care.

These problems notwithstanding, the rapid increase in the number of cases of mental disorder seen in the primary care centers is encouraging and is an index of the dedication and good will of the Ndera Hospital staff.

Recommendations

Reflecting on the experience of developing mental health services in Rwanda enables us to offer some recommendations for other Third World countries.

(a) Initially, a higher priority needs to be accorded to mental health activities. This would be facilitated by the central government developing a national policy on mental health and creating a division of mental health in the Ministry of Public Health.

(b) Along with this, there is a need for a broader educational program to enable primary care health workers to carry out mental health activities. We need to make more room for mental health in health care in general, and we need to sensitize health staff to the problems of mental health. A place to begin would be by defining the tasks that each of the different positions of health personnel must complete, and then work out the methods of education needed for each position. The government and the institutions concerned will have to make sure that all of the education programs contain clearly-worded pedagogical objectives, and that the evaluation of these programs are carried out in step with the objectives.

(c) Recognizing that folk healers are an important source of mental health care, mechanisms of collaboration with them need to be explored. Collaboration with the healers could lead to more effective preventive measures, improved methods of

patient care, particularly in encouraging them to pursue prescribed regimens.

(d) A continuous evaluation program is important because it allows access to information on the volume and intensity of psychiatric programs, cost, and effectiveness of services, and current needs. It could also serve to monitor the evolution of the activities and could help considerably in establishing new services.

(e) Mental health activities could be extended by establishing psychiatric beds in general hospitals for acute psychosis cases and by creating active consultation services. The example of Ndera shows us that a primary care physician is able to take care of most psychiatric syndromes if he is assisted by a specialist. Thus, the mental health teams, working out of the rural or prefectorial hospitals, could maintain the activities developed in the pilot centers.

(f) In general, the tasks of mental health rely on more than just a policy. There is a need for cooperation and coordination, more at the level of planning than at execution, between mental health, public health, and social services.

A Final Note

Economists are fond of noting that wants are infinite, while resources are always finite. Even industrialized countries, such as the U.S. and Belgium, which spend considerable sums for health services, have come to realize that unrestricted access to health care for all is a financial impossibility: some limits, priorities, or constraints need to be imposed. The limitations in a poor, developing nation like Rwanda are severe. Proportionately less resources are available for health care. The small amount that is available is likely to be allocated to the prevention and treatment of infectious diseases, infant mortality and malnutrition, with the result that mental health care is accorded a relatively low priority.

The overall effectiveness and utility of the WHO strategy of decentralization and integration as a means of extending the scope of mental health services delivery must be viewed in the context of these severe resource constraints and priorities.

This paper has considered some of the accomplishments and problems of this program. Based on this experience, we have been able to suggest some guidelines for other developing countries.

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