Artículo Original

Designing the Model of the Management of Mental Health Services

Diseño del Modelo de Gestión de Servicios de Salud Mental

Shahrooz Rahbari[1,a], Leila Riahi[2,b], Jamaleddin Tabibi[3,c]

ABSTRACT

Introduction: *Having mental health is necessary for the growth and prosperity of humans and as a result of the growth of societies.****Objectives:*** *The purpose of this study was to design a mental health management model in Iran.Methods: In this exploratory study, a review study was first performed to analyze the current state of mental health services in Iran and the world. Countries were selected to compare mental health management with Iran in 6 domains. 311 faculty members with mental health were completed by completing a questionnaire with 50 items in the study. Using the factor analysis, the final model was explained.* ***Results:*** *The effective domains in Iranian mental health services management were named in 8 areas: Mental Health in Particular, Key Centers and Task-Shifting, Human Resources and Specialists Training, Psychological Services for Children and Adolescents, Financial Resources and Hospital Services, Mental Health in PHC and Primary medical services, Policy-Making and Human Rights, Monitoring and Control, Community-Based Services.****Conclusions:*** *The proposed model of mental health services management in Iran consists of 8 domains, which is a comprehensive and multidimensional concept. Paying attention to its factors can lead to the successful management of mental health services in Iran.*

Keywords: *Mental Health; Health Management; Human Resources; Health Care Management; model (****Fuente:*** *DeCS-BIREME).*

RESUMEN

Objetivo: Tener salud mental es necesario para el crecimiento y la prosperidad de los humanos y como resultado del crecimiento de las sociedades. Objetivos: El propósito de este estudio fue diseñar un modelo de gestión de salud mental en Irán. **Material y Métodos:** en este estudio exploratorio, primero se realizó un estudio de revisión para analizar el estado actual de los servicios de salud mental en Irán y el mundo. Los países fueron seleccionados para comparar la gestión de la salud mental con Irán en 6 dominios. Se completaron 311 profesores con salud mental completando un cuestionario con 50 ítems en el estudio. Utilizando el análisis factorial, se explicó el modelo final. **Resultados:** Los dominios efectivos en la gestión de los servicios de salud mental iraníes se nombraron en 8 áreas: salud mental en particular, centros clave y cambio de tareas, capacitación de recursos humanos y especialistas, servicios psicológicos para niños y adolescentes, recursos financieros y servicios hospitalarios, salud mental en APS y servicios médicos primarios, formulación de políticas y derechos humanos, monitoreo y control, servicios comunitarios. **Conclusiones:** El modelo propuesto de gestión de servicios de salud mental en Irán consta de 8 dominios, que es un concepto integral y multidimensional. Prestar atención a sus factores puede conducir a la gestión exitosa de los servicios de salud mental en Irán.

Palabras clave: salud mental; gestión sanitaria; recursos humanos; gestión sanitaria; modelo (**Source:** *DeCS-BIREME*).

INTRODUCTION

Nowadays, the development and civilization of societies have increased pressures, tensions and mental issues caused by this lifestyle. Therefore, paying attention to mental health is crucial, and the World Health Organization has integrated mental health into Primary Health Cares[(1)]. Currently, nearly 676 million people in the world are suffering from mental disorders, and almost one out of every 10 people has mental disorders. In 2016, about 13 percent

1. PhD in Health Care Management, Department of Health Services Management, Science and Research Branch, Islamic Azad University, Tehran, Iran.
2. Department of Health Services Management, Science and Research Branch, Islamic Azad University, Tehran, Iran.
3. Department of Health Services Management, Science and Research Branch, Islamic Azad University, Tehran, Iran.
a. PhD.
b. Assistant Professor.
c. Professor.

of all the disease was known to be due to mental disorders, and it is predicted that by 2020 it will rise to 16 percent and the amount of disabilities due to these disorders will reach 33 percent.[2] In 2015, after cardiovascular diseases and cancer, mental disorders were the third most common cause of the global burden of diseases[2]. Three basic mental health problems of countries are the lack, unequal distribution and inefficient use of resources[3]. The number of people who have passed some years of their lives with disabilities in the Eastern Mediterranean region, which also includes Iran, has risen from 9526 people per 100000 in 1990 to 10057 people per 100000 in 2013. Also, the most common causes of these disorders were musculoskeletal disorders and mental disorders. It has also been shown that, in this region, the most important factors in the number of years lost due to disabilities or premature death were cardiovascular diseases and mental disorders and the factor of mental disorders is increasing with an upward trend[2].

Twenty-three point six percent of people in Iran suffer from one or more mental disorders. A comparison of these results with the results of previous surveys in the country in 2005 (21%) indicates that the prevalence of these disorders has increased[4].

In Iran, since 1986, the national mental health plan strategy was to integrate new activities into a primary health care system[5]. The first pilot phase of this project in 1988 to demonstrate the effectiveness of this program. However, thirty years have passed from the execution of these plans and despite their primary success they prove to be ineffective nowadays and results indicate that goals cannot be achieved using the old plans[6].

Some of these inefficiencies are lack of financial credibility, the inconsistency of the initiation and continuation of plans with national structures, unsustainable and ineffective insurance supports, lack of a proper plan in the field of urban mental health, lack of specialized health and medical services and lack of measurement of the quality of mental health care. These problems are due to the lack of proper management of resources and facilities, lack of proper planning, poor organization, lack of coordination among various sectors and a failure to observe the rules[7]. Therefore, the plans must be modified and revised to adjust to the current conditions of the country.

Objectives: This research aims to design a mental health management model with respects to Iran's condition in order to improve mental health care.

MATERIAL AND METHODS

This research is exploratory in terms of objective and is an analytical and cross-sectional study. In the first stage, a review study was conducted to analyze the current condition of management and the provision of mental health services in the country as well as in the world.

At the second stage, South Korea, Philippines, Egypt, the United Kingdom, and Brazil were selected for the comparative study.

In the Third stage, the following items were investigated based on the aspects and variables mentioned in the 6 domains determined by WHO:

- Policies and laws regarding mental health services, human rights, and financial resources
- Mental health services
- Mental health in primary health care
- Management of human resource providing mental health services
- General education at the community level and communication with other sectors related to mental health
- Controlling and conducting research

A comparative matrix was developed to compare the condition of the management of mental health services in Iran with that of the selected countries.

At the four stage, a questionnaire with 50 items was prepared based on the comparative matrix and extraction of different domains, and its fitting was investigated.

In the fifth stage, a field study was conducted and the sample size consisted of 311 of the faculty members of universities with expertise in psychiatry, psychology, psychiatric nursing, occupational therapy, social work and health services management.

In the last stage, using exploratory and confirmatory factor analysis, the final model was described based on the data and was organized into a classified plan. Also, the effect of each of the variables and aspects was evaluated on the suggested model.

Cluster sampling was used to collect data from 5 general regions of the country. Questionnaires were sent to all faculty members of universities with the aforementioned expertise, so that the return rate would be desirable. The questionnaires were submitted to 535 of the abovementioned experts, in person and through e-mail, within 45 days. One hundred and thirty-four questionnaires that were not filled were excluded from the research. Also, 90 questionnaires were not returned. Ultimately, 311 questionnaires were completely filled and returned.

Data collection tools

A questionnaire with 50 items was used in this research

in order to collect data. To determine the content validity index and content reliability index of the questionnaire, it was distributed among 30 faculty members of universities with expertise. The face validity of the questionnaire was also questioned.
Data analysis was performed using exploratory and confirmatory factor analysis methods (Table N°1).

Table N°1. Bartlett & KMO Test result

Kaiser-Meyer-Olkin	0.883
Bartlett's Test	9113.097
df	1225
Statistically Significant	0

RESULTS

Based on the comparative analysis, factors affecting the management of mental health services in Iran were identified. Eight domains were identified as the main domains, and using them, confirmatory factor analysis was done. Thus the ultimate model was extracted with 8 domains and 28 items which are as follows:

Domain 1: "Mental Health in Particular, Key Centers and Task-Shifting":
- Holding regular courses of mental health education and training for judges, lawyers, police officers, prison guards and school teachers (0.749(
- Presence of mental health professionals in prisons, police departments, the judiciary, courts, and schools for investigation, improvement, prevention, treatment and mental health care (0.744).
- Establishing outpatient clinics with minor admission facilities, psychotherapy, daily and night centers, counseling, psychotherapy and occupational therapy in cities (0.610).
- Increasing university teaching units to further educate physicians and paramedics regarding health and mental disorders, as well as providing regular retraining courses about health and mental disorders for all health care personnel at least once a year (0.556).

Domain 2: "Human Resources and Specialists Training"
- Creating motivations and facilities to encourage graduates of general courses (medicine, nursing, and psychology) to focus on mental health specialties (psychiatry, psychiatric nursing, and clinical psychology) (0.796).
- Increasing admission in the fields related to mental health in order to provide sufficient human resources (0.777).
- Developing and creating a master's degree in planning and managing mental health services in order to train specialist personnel for planning and managing mental health services (0.729).

Domain 3: "Psychological Services for Children and Adolescents"
- The third level of specialized services for children and adolescents provided by mental health services staff and psychiatrists of children and adolescents (0.793).
- The second level of specialized services for children and adolescents provided by mental health services staff in community treatment centers (0.787).
- The first level of specialized services for children and adolescents in schools and kindergartens in order to provide general education, raise awareness, doing the screening, counseling, and referral (0.770).

Domain 4: "Financial Resources and Hospital Services"
- Establishment of special hospitalization centers for legal patients, rehabilitation of addicts and mental retards (0.635).
- Allocating an average of 5 to 8 percent of the country's health budget to mental health (0.613).
- Hospitalization of psychiatric patients in public hospitals and allocation of 10 to 15 percent of hospital beds to psychiatric patients (0.611).
- Providing budgets of mental health services from various sectors, such as government, municipalities, private and governmental sector and charities (0.555).

Domain 5: "Mental Health in PHC and Primary medical services"
- Limiting the general practitioners and physicians working in PHC in prescribing psychiatric drugs, except by passing regular and annual specialist courses on mental disorders and psychiatric medicines only for mild disorders (0.750).
- Allocating a standard time (6 weeks) for referral of non-emergency cases to the psychiatrist, as well as assigning a standard time (8 weeks) for treatment, control and getting reports by psychiatrists in PHC services and referral system (0.629).
- Treatment of mild mental disorders by general practitioners and referral of severe cases to psychiatric practitioners after initial interventions (0.546).
- Monitoring and controlling health care providers and health volunteers in the PHC team on the use of psychiatric drugs by the patient, reviewing the treatment process and tracking and reporting them daily (0.510).

Domain 6: "Policy Making and Human Rights"
- Establishing an office for human rights and values at the level of the ministry of health and expression of human rights and values, monitoring, data collection, investigation, inspection, complaints

handling and classification of centers based on their level of human right observance (0.743).
- Creating an office in the ministry of health consisting of all the mental health specialists, health and treatment service managers, private sectors and NGOs, in order to standardize mental health services and plans for returning home (0.679)
- An Effective and efficient integration of mental health services in PHC services (0.653)

Domain 7: "Monitoring and Control"
- Creating an institution of experts with the participation of patients, families and NGOs, outside the ministry of health, in charge of clinically supervising the correct implementation of instructions, human rights, cost control, review, giving reports and releasing them (0.785).
- Establishing an institution responsible for assessing the needs of each region and monitoring the respectful treatment of patients, care and treatment supervision, ensuring the meeting the physical needs of patients, assessing safe, effective, accountable and guidance services (0.700).
- Creating a registry system to provide a list of all data that need to be collected from mental health centers, as well as monitoring and evaluation of services carried out and collection and giving reports of annual information (0.595).

Domain 8: "Community-Based Services"
- Training traditional and religious therapists on mental health and patient referral to specialists (0.672).
- Providing community-based services and specialties including: intervention teams in the time of crisis, relief teams, a team for society's mental health, early intervention team (0.540).

Assessing the performance of mental health care providers at least once a year by a team of mental health professionals (0.533) (Table N°2) & (Table N°3) and (Table N°4).

Table N°2. Frequency distribution

Variable	Group	Number	percent
Gender			
	Male	154	49.5
	Female	157	50.5
Degree of education			
	Doctor	60	19.3
	PHD	206	66.2
	Master of Science	45	14.5
Position title			
	Psychiatrist	57	18.3
	Psychiatric nurse	39	12.5
	Psychologist	108	34.7
	Occupational therapists	39	12.5
	Social workers	26	8.4
	Healthcare management	42	13.5

Figure N°1.
Mental Health Management model

DISCUSSION

Domain 1: Education, the judiciary, the police, and other staff in the community can support the sharing of tasks through monitoring and participation of local communities. Approaches to task sharing may help achieve and influence mental health care in rural areas and other low-resource areas[8]. Task shifting or sharing tasks is one of the best strategies to offset the shortage of manpower. Task shifting is transferring tasks to existing or new forces with less training or more precise training. This strategy could include: recruiting mental health care providers in different departments, interpersonal cooperation with other professionals including teachers and prison staff to raise awareness of mental health, diagnosing mental disorders and referrals, and provide services[9]. Establishing daily centers can have an effective role in providing mental health services in the cities. Patients, who need more care than those given in clinics and outpatient centers, receive services in daily centers, in which services are provided at specific times of the day and the rest of the day, the patient will be at home. This method can considerably reduce the cost of treatment and if the admission of these patients to these centers is done properly.

Domain 2: Some strategies to improve manpower performance are regular and effective training and retraining programs, precise job descriptions, constant and continuing education, increasing mental health academic units of the medical sciences department, and also increasing the capacity of these specialists in universities[10]. In Brazil, the Masters in mental health planning is being established in the universities of this country with the financial support of the ministry of health; this can remarkably contribute to effective management[11].

Domain 3: A high level of mental disorders can be

Table N°3. Comparative Comparison of mental health in selected countries

Domain Country	Psychological health policy and law	Mental health budget as the percentage of the health budget	Hospital budget as the percentage of the mental health	Access essential Medicine	Human Rights law
Egypt	Changing Health hospital center into society center patients and family participation has been reform Protect the patients. Keeping and promoting human rights Insist on: Service accesses Budget supply Quality improvement Supervision system	2%	59%	Eighty-one percent of patients have free access to psychotic medications but others spend 5 percent of daily income	Human Rights law has been down periodic
South Korea	Improvement of community service center Minimize psychiatric hospital Integration of psychiatric health services into PHC patient and family participation SUPPORT protect PROMOT human rights Access to health care equality quality improvement supervise Supply essential psychotropic medications	6%	31%	Only 4 percent of people have free access to psychotropic medications but others spend 29 percent of daily income	Human Rights law has been down periodic
Philippines	Cooperation and assist empowerment development ıhuman sources stability information system Monitoring and evaluation There is no roll	5%	95%	0/46-11/14 % daily income	Human right, without monitoring
Brazil	Acute patient is admitted in general hospital ‹The Return Home Program	2/5%	49/3%	%100 of People have free access to psychotropic medications	Human right with monitoring
Iran	improvement mental in health services development of psychiatric wards in general hospitals improvement in psychiatric health services into PHC ‹ SUPPORT protect PROMOT human rights CONTROL AND QUALITY PROMOTION NO SPECIFIC ROLL	3%	18%	2-4 % daily income	-
England	CLEAR psychiatric strategy in four fields A formularized policy with 7 subgroup PREVENT TO SUICIDE	13%	-	-	Human right with monitoring

Table N°4. Comparative Comparison of mental health in selected countries

Domain Country	Drug prescription by general practitioner	Supportive laws for mental patients	Patient and family councils	Data gathering	specific mental research projects
Egypt	They are allowed to prescribe only imipramine and chlorpromazine with restrictions .but they are allowed these drugs with receive specialized mental health training	-	-	There is a list of data without integrity .data collection is different in various centers	4%
South Korea	without restrictions	employment of people with mental disorders no discrimination at work financial support for housing	establish rules	From all centers according to list	1%
Philippines	with restrictions	-	-	100% of hospitals	-
Brazil	They are allowed to prescribe antipsychotic, antidepressant t .expensive drug, but with restrictions	employment of people with mental disorders. no discrimination at work and financial support for housing	yes	Has data collecting system of different in various centers	3/31%
Iran	without restrictions	There is an act to employ A certain percentage of patients but cant be play	One formal association is without any roll	There is a list of data but	4%
England	They are allowed to initiate prescription Mild depression anxiety and eating disorder but others must be referred to a specialist	supporting no discrimination at work. and financial support for housing is a priority	they are many formal and informal association consist of 700 responsible for association coordinating	legal and regular	Research budget nearly 115 million euro in a year

observed in the general population of the Eastern Mediterranean region. In these countries, poor mental health conditions are associated with conflict conditions, limited mental health services and immigration of experts or very limited mental health infrastructures. As a result, to address the enormous needs and limited professional resources, many innovative approaches have been taken to address these needs, such as training alternative professionals, using social resources such as teachers and volunteers, or empowering the population with culturally acceptable methods[12].

Domain 4: The following strategies are proposed to address for low- and middle-income countries: Allocating funds to mental health through providing funds at the level of city and county, dual funding for the development of community-based services while maintaining and developing high-level services, paying allowances to people with disabilities and people with acute mental illnesses, and establishing special centers for the treatment and taking care of these patients and allocating special spaces to psychiatric patients in public hospitals[10]. Compared to global data, there is a huge difference between the burden of mental disorders and resources. The main method of financing mental health services in the majority of countries was tax-based, but many low-income countries were

dependent on pocket costs. In order to use resources effectively, countries must support the integration of services, redistribution of psychiatric beds and provision of services for specific populations[13].

Domain 5: In low-income countries, many facilities like mental health professionals for mental health care do not exist. But in each region, there is the possibility of using existing models for the management of tuberculosis and HIV for mental health care. Broad networks of community-based health workers and volunteers in most countries provide more opportunities to expand mental health care. All countries suffer from a lack of specialized mental health staff to support mental health care by PHC staff. In order to achieve adequate levels of supervision and support for specialized services in these countries, it is essential that additional mental health workers or the use of new methods such as colleague support or remote monitoring using telemedicine be taken into account[14]. in the model presented in this study, it is recommended that health care providers in the PHC team be monitored and controlled on the use of psychiatric drugs by the patient daily and the treatment process and its reports also be controlled, in order that the treatment process is checked and recurrence and severity of the disease due to the lack of attention to recommended treatments are reduced[10].

Domain 6: In countries where there is no mental health policy, public health is of low priority, technical capacity is generally poor, resources are not enough and coordination, management at the level of small towns is weak. A mental health unit should be formed to be in charge of mental health services at the national level. This unit should be responsible for making policies and preventive laws regarding mental health in all aspects (Petersen et al 2017). In low- and middle-income countries, comprehensive health-care integrated interventions must be transferred to primary care[14].

Domain 7: There are several methods for measuring quality as the ultimate tool for improving the quality of mental health care. First, payers and health care providers require a set of patient-centered validation measures in a wide range of settings, as well as for specific populations, including children and young people. Second, common information elements must be placed into the existing clinical electronic health records and other IT tools for the diagnosis. Third, mental health results should be evaluated regularly, and measure-based care should not only be embedded within the existing technology, but should also become part of the whole culture of setting the environment and health care system. Fourth, health systems require investment, leadership, and coordination to improve and connect data sources in order to measure quality in settings. Ultimately, health care systems need a valid methodology for classifying quality measures to identify potential gaps among low populations and groups who are most often in need of quality improvement[15].

Domain 8: In recent decades, models for providing community-based mental health services have been proposed, one of which is providing comprehensive services in community-based mental health centers. The main characteristic of this model is the provision of comprehensive services for the prevention, diagnosis, treatment, and rehabilitation of patients without relying on psychiatric hospitals. These centers can provide a variety of services. The goal of this therapy is to maintain the relationship and cooperation of patients with health care services, to reduce hospitalization and to improve the social performance and quality of life of patients[4].

Upon the whole, it can be concluded that the suggested model in this study is suitable for the management of mental health services based on the criteria of world organization and the measures of various countries in this domain, which consists of 8 major domains with 29 variables. Also, according to all the aspects and variables which were localized from all over the county based on the opinion of experts, this model can improve the management of mental health services in the country effectively and meet the desired goals of the country's mental health.

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Correspondence
Leila Riahi.
Email: l.riahi@srbiau.ac.ir

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