PREVENTION IN PSYCHIATRY

Essay

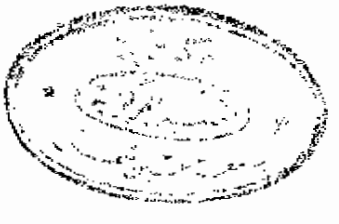
Submitted for the partial fulfillment of the Master Degree In Neuropsychiatry

By
Mamdouh Abd El-Salam
(M.B.B. Ch.)

Supervised By

Prof. Dr. ZEINAB BISHRY
Professor of Neuropsychiatry
Faculty of Medicine
Ain Shams University

Prof. Dr. FAROUK LOTAIEF
professor of Neuropsychiatry
Faculty of Medicine
Ain Shams University



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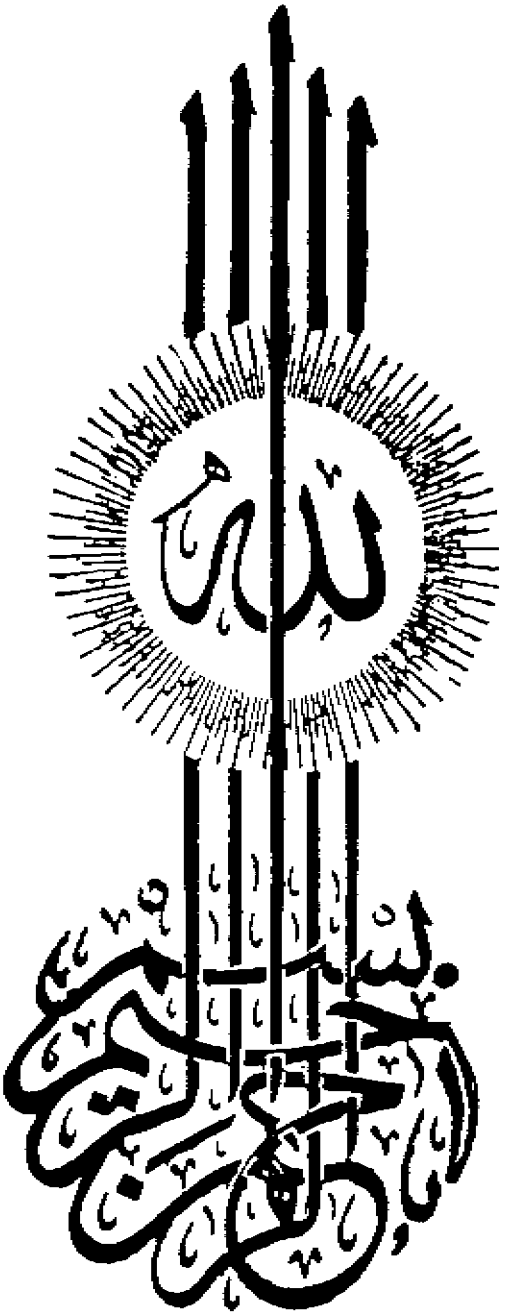

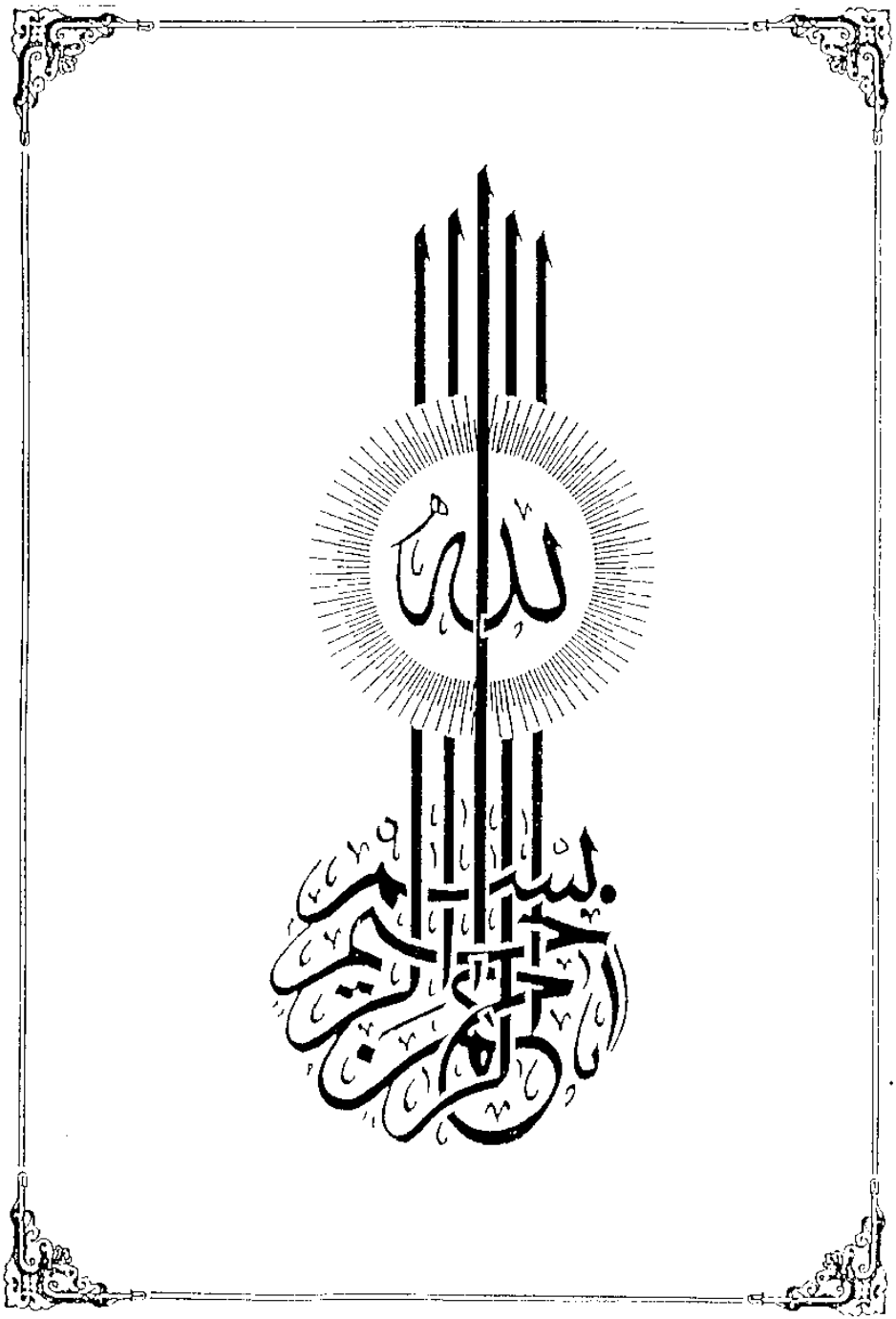

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INTRODUCTION

"prevention is better than treatment"

It has been the dream of medicine that all illness may one day be prevented. So, too, with psychiatry, **(Philips, 1983)**. The dream of a viable science of prevention has been a recurrent theme in the American psychiatry from Adolf Meyer's pioneering efforts before world war I, **(Spire, 1980)**. The modern concept of prevention entails three levels : Primary, secondary and tertiary, **(El-Sayed, 1984)**.

Primary prevention in psychiatry : Prevention of the incidence of psychiatric diseases. Its techniques are roughly classified into biotechnical and psychosocial, **(Spire, 1980)**.

Secondary prevention : Decreasing prevalence of psychiatric diseases by early identification and rapid intervention. If secondary prevention to be useful, the people who need help must seek it, **(Langsley, 1985)**. However, early intervention if poorly handled can produce toxic responses, **(Spire, 1980)**.

Tertiary prevention : Minimising the effects of residual disabilities and taking advantage of the remaining patient's assets through rehabilitation and follow up services, **(Connell, 1985)**. The mental health practitioner should be well acquainted with all the three forms of preventive activity, **(Spire, 1980)**.

Actually, prevention in psychiatry is very complex because only few psychiatric disorders have a single aetiologic agent. But, knowing that the mental health problem is an enormous one (the point prevalence of diagnosable mental disorders was found to be 15% of the population; also, it has been estimated that out of each 100 born, 40 will suffer at one period of their life from a psychiatric disorder). Therefore, preventing such a problem is better than treating it, **(Okasha, 1988)**. The magnitude, the cost and the severity of the problems confronting psychiatry demand a combination of clinical and public health solutions, **(Spiro, 1980)**.

Aim of the work : The aim of this study is

- To alert the practitioners to the possibilities of prevention in the practice of psychiatry.
- To stimulate the efforts to start the planning for a national preventive strategy in the field of psychiatry.
- To point out the landmarks and important elements which have to be considered while building our preventive programs.

PUBLIC HEALTH APPROACH

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The goals of medicine are to preserve health, to restore health, and to relieve suffering. These require application of scientific disciplines and possession of skills and beliefs that are best described by the phrase "public health and preventive medicine".

Public health can be defined as a combination of sciences, skills, and beliefs that are directed to the maintenance and improvement of the health of whole people. To varying degrees, all nations provide services and programs that aim toward this goal. The tasks and methods of public health change and evolve, but the underlying goals remain always the same.

Preventive medicine is the branch of medicine that is concerned primarily with preventing physical, mental and emotional diseases and injury in contrast to treating the sick and injured. It is more person oriented than population oriented. It comprises many of the same sciences, skills, and attitudes as public health with an added clinical dimension. Prevention is often inseparable from treatment and cure, as with some aspects of communicable disease control and self-destructive behavior such as alcohol addiction, **(Last, 1986)**. The modern concept of prevention entails three levels : primary, secondary, and tertiary, **(El-Sayed, 1984)**.

Primary Prevention :

It implies the removal or avoidance of the factors causing a given impairment. This requires an understanding of its aetiology which may be wholly environmental, wholly genetic, or multifactorial, where both genetic and environmental factors play a part.

I- Environmental Hazards .

It is important to recognize how the environment, especially in crowded communities, influences physical and mental health, **(Last, 1986)**. Prevention can be achieved by removal of a recognized environmental hazard or by addition of a substance to the environment.

Removal of a recognized environmental hazard : This is the most effective, cheap, and safest from of primary prevention; and includes :

1- Infective agents to which normal individuals are vulnerable.
2- Suboptimal nutrition : under ___, over___, or malnutrition, **(Alberman, 1986)**.
3- Toxins and poisons ingested accidentally, industrial wastes discharged into waterways, pesticide residues, toxic wastes and fertilizers which contaminate lands, **(Last, 1986)** and exposure to agents such as tobacco, alcohol, or drugs.

4- Hazards of familial disruption, extreme poverty, badhousing, ...

5- Road traffic accidents water to drown in, heights to fall from, cutting edges, ...

6- Hazards of wars.

Prevention by addition : Achieving prevention by addition of a substance to the environment e.g. fluoridation of water, **(Alberman, 1986)**. Community water fluoridation continues to be the most cost-effective method for preventing dental decay, **(Crall, 1986)**. Prevention of dental disease by reduction of sugar and increase of fluoride intake is one of the success stories of preventive medicine, **(Alberman, 1986)**. We can be sure that preserving the integrity of the environment is one way to safeguard health, and that there still much to be done, **(Last, 1986)**.

Infectious Diseases :

Highly effective primary prevention strategies have been developed when nature of the disease is well understood and specific targeted strategies can be used. Once the causative agent, the vectors, and modalities of transmision and the primary host factors in a disease are fully understood, measures can be undertaken that specially interrupt the chain of the disease, **(Spiro, 1980)**.

The major approaches to control infectious diseases include measures under three headings :

a- Increasing host resistance.

b- Breaking the chain of transmission.

c- Inactivation of the infectious agent. Table (1).

Immunization :

Immunization may be active or passive,routine or selective, **(Shenson, 1982)**.

Active immunization : Individual's immunological system is stimulated by an antigen or infective agent to produce antibodies or sensitized lymphocytes. It is a long lasting response. e.g. a child who recovered from an attack of measles virus will enjoy immunity against reinfection for the rest of his life.

Passive immunization : Antibodies or sensitized lymphocytes already prepared are transferred to the individual from a donor i.e. individual's immunological system has no active role e.g. IgG transfer from maternal blood to the foetus via placenta, **(El Batawi, 1986)**.

Routine immunization : Routinely done.

Selective immunization : For the benefit of particular individuals as travellers, e.g. yellow fever immunization for

TABLE 1. METHODS FOR PREVENTION AND CONTROL OF INFECTIOUS DISEASES

A. Increasing host resistance
   1. Use of immunobiologicals—vaccines and toxoids for active immunization and immune globulins for passive immunization
   2. Improvement in general health—proper nutrition, exercise, etc.

B. Breaking the chain of transmission of infection
   1. Rapid case detection and specific chemotherapy to limit infectivity
   2. Isolation of infectious cases and quarantine of their contacts
   3. Chemoprophylaxis before or after exposure to an infectious disease
   4. Control of animals and other biological vectors of disease—arthropods, snails
   5. Environmental control of air, dust, and dirt, which may harbor infectious agents
   6. Use of aseptic technique in management of patients, their excretions and secretions
   7. Control of general sanitation—food, water, sewage
   8. Personal measures for avoiding exposure or limiting spread of infectious diseases
      a. Good personal hygiene
      b. Proper food-handling procedures
      c. Use of protective clothing or repellents to prevent insect bites
      d. Avoiding water, foods, animals, and insects likely to transmit disease

C. Inactivating the infectious agent
   1. Use of physical methods
      a. Heat—pasteurization, adequate cooking of food, heat sterilization of infectious material
      b. Cold—maintaining meat at low temperatures to inactivate some parasites
      c. Radiation—ultraviolet light to inactivate infectious agents in air and on surfaces
   2. Use of chemical methods
      a. Chlorinate water supplies and sewage effluents
      b. Disinfect infectious or potentially infectious material—fungicides, etc.

(Quoted from Public Health and Preventive Medicine, 12th edition, 1986).