



## **Comprehensive Diabetes Clinic Model-Diabetes Research Center, Yazd, Iran**

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**(Received 18 Jan 2021; accepted 27 Jan 2021)**

### **Dear Editor-in-Chief**

Non-communicable diseases (NCDs) are responsible for 70% of deaths worldwide (1). Diabetes mellitus (DM) is one of the most important NCDs (1). DM is a metabolic disorder that influences people and society in different aspects; physically, socially, psychologically and economically. DM has many modifiable risk factors associated with the individual's lifestyle pattern (1, 2). The prevalence of diabetes is high in the world and International Diabetes Federation (IFD) has predicted 642 million by 2040 suffer from DM (3). The incidence rate of DM is 21.4 per 1,000 of a person-year in Yazd, Iran (4). If the prevalence of diabetes reduction to zero, cardiovascular disease is reduced by 23.6% and 10.6% in men and women respectively, in Yazd (5).

The high prevalence and incidence of DM in Yazd was a rational and necessary reason of comprehensive diabetes clinic establishment in Yazd- Iran, the diabetes research center (DRC) has established as a comprehensive diabetes clinic in 2010 and developed during 9 years. The DRC is a reference center for diabetic patients and contains four major parts: research, education, prevention, and treatment (Fig. 1). The research section (RS) is the basic and first part of the DRC developed in 1998. Various studies are designed

by RS and implemented in the education section (ES) and RS. Interventional and community-based studies are being conducted in DRC with 35,000 diabetic records. There is an official scientific quarterly journal published by The Iranian Journal of Diabetes and Obesity (IJDO) in RS part of DRC.

The continuing education section (CES) helps physicians, nurses, and medical students to improve their knowledge about diabetes through different kinds of education programs. Moreover, there are two other types of education in DRC; patient-oriented educations (including how to use medications and insulin injections, lifestyle modification, a different aspect of diabetes, etc.) and community-based education. Community education (CE) also includes primary and secondary prevention and screening in general population by the diabetes bus (6). Blood samples from research projects in RS are kept in laboratory biobank. People referred to the DRC contain two categories: at risk of diabetes and the diagnosed patients with diabetes. Two ways to find high-risk people for diabetes include risk assessment of diabetes for 10 years or referring patients to the DRC.



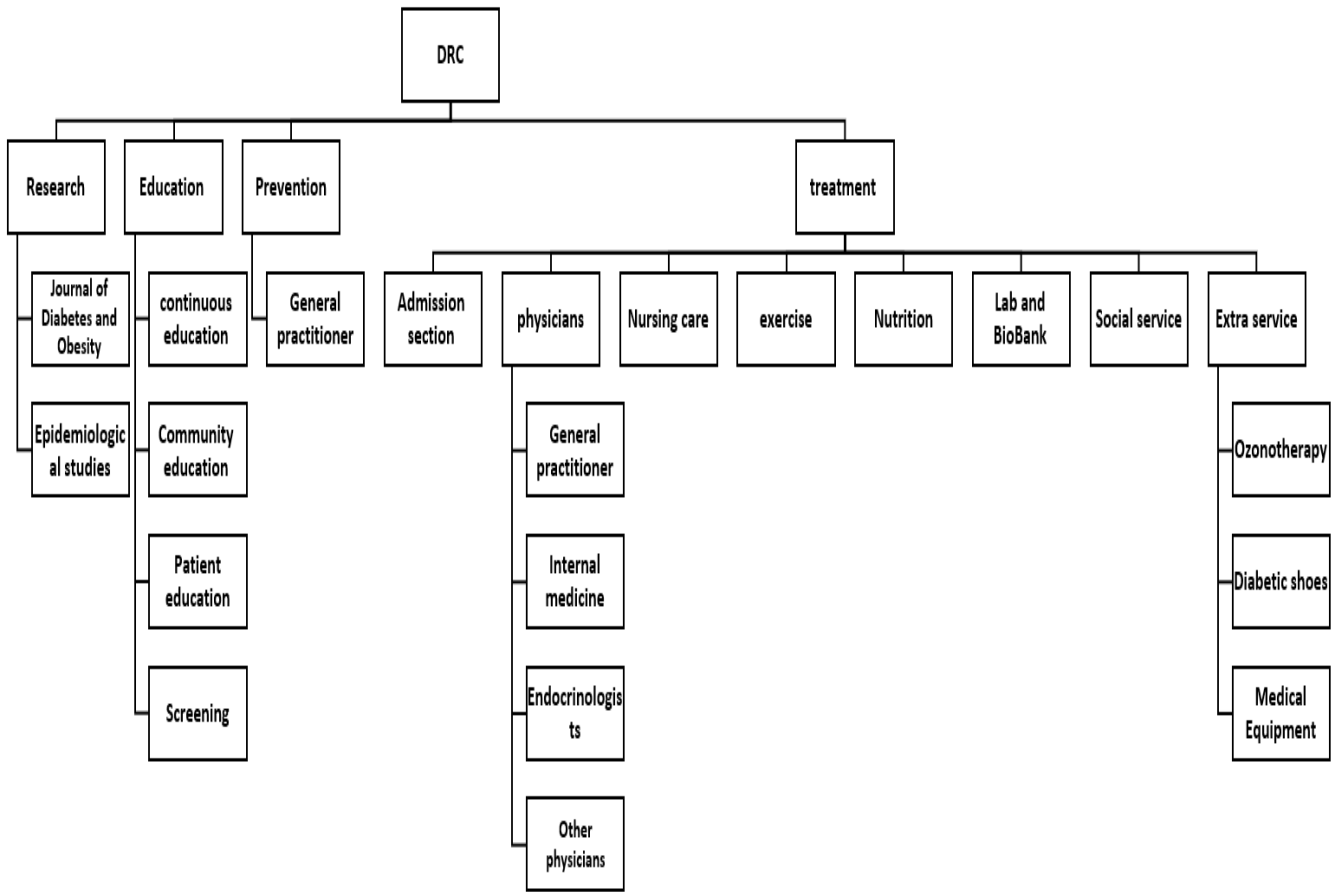


Fig. 1: Diabetes Research Center Chart

They are referred to community and preventive medicine specialists (prevention section). They are screened for risk factors of DM and other NCDs. After consultation and according to every patient, they are referred to the nursing care, nutrition specialist, sports medicine and laboratory units. Moreover, if it is necessary they will be referred to internal medicine specialist, endocrinologist, and cardiologist, etc. The traditional Iranian medicine specialist visits patients along with other specialists.

Patients who need financial or psychological assistance are referred to the social service section. In the DRC, there are extra services for diabetic patients, such as ozonotherapy, diabetic shoes, and medical equipment. Finally, all patient information will be recorded in his electronic record

for used to follow up patient and design research studies.

The strengths of DRC are as follows: conducting of studies on different aspects of diabetes because the DRC as a Comprehensive Diabetes Clinic Model (CDCM) and including many patients, physicians and researchers together is unique. Physicians and researchers deliberate new studies about diabetes by participating in weekly journal clubs. In addition, one of the other consultative councils is the presentation of the case with research and therapeutic vision by endocrinologists and other professionals in journal clubs which may be the origin of case report studies. If patients get diabetes complications, your doctor will refer them to the specialist at the DRC.

And this process is easily accessible at a low cost to the patient.

The following are the weaknesses of DRC: A large number of patients who are visits in the DRC who are not from Yazd (the follow-up is difficult) should be considered as treat and opportunity. There is no independent budget or income for DRC so; many large population-based studies and modalities are restricted.

It is suggested some centers similar to the DRC in other provinces of Iran. Both the problem of the patients can be resolved in those provinces and the provision of services will be increased to patients from Yazd.

### Conflict of interest

The authors declare that there is no conflict of interest.

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