

The prevalence of diabetes health and social care essay

[Health & Medicine](#), [Diabetes](#)



Diabetes Mellitus is considered to be a major public health problem worldwide. Its planetary prevalence has been estimated by World Health Organization WHO to be more than 135 million. The projection for the twelvemonth 2025 estimates a 120 % addition in figure of instances throughout the universe (Al-Lawati & A ; Mohammed 2000) and besides estimates a 150 % addition in the East Mediterranean Region (EMR) (Al-Lawati et al. 2002) . In EMR, the diabetes prevalence rate for grownups is 7.7 % but this figure rises to between 12 % and 20 % for older age groups in urban communities and in Gulf States (EMRO 2005) . The prevalence is higher in developed states than developing states. However, more addition will be in the underdeveloped universe in the coming 30 old ages (King et al. 1998) . This is clearly coercing the developing states to take active steps towards curbing diabetes.

Diabetes is a chief cause of morbidity and mortality globally. It was estimated that the extra planetary mortality attributable to diabetes in the twelvemonth 2000 to be 2.9 million deaths. The diabetes is likely to be the 5th leading cause of death (Roglic et al. 2005) . This is true for Sultanate of Oman and the magnitude of the problem is continuously increasing. I will research diabetes in Oman in an elaborate manner. I will be analysing the load of diabetes and the factors maintaining its prevalence high. I will besides foreground the steps that have been adopted to get the better of this problem. At the terminal I will discourse the restraints and place the countries necessitating more attention in order to beef up the control of diabetes in Oman.

The state:

Sultanate of Oman occupies the southeasterly corner of the Arabian Peninsula. It is bounded by the Gulf of Oman, Arabian Sea, Yemen, Saudi Arabia and the United Arab Emirates. Its entire country is 309, 500 square kilometers. The capital is Muscat. Oman comprises a coastal field of 1700 kilometer length and an interior part of hills and desert. The population is 2.5 million harmonizing to 2003 nose count (MONE 2005) . The population is preponderantly Arab, with Pakistani, Indian, and Zanzibari minorities. Around 51 % of the Omani population is under 15 old ages old. Omanis remain a big bulk (74 %) in their state unlike some of the Gulf States, which are dominated by foreign workers (Hejleh 2005) . Oman is administratively divided into 5 parts and 3 governorates with 59 Wilayates (territory) (MOH 2003) . Ministry of Health is responsible for presenting wellness service in Oman. The wellness attention is provided free of cost for the Omani population all Omani but fee is applied for non-Omani population (MONE 2004) .

Burden of the disease:

It is indispensable to discourse the prevalence of diabetes and the its complications in order to hold a general thought about the magnitude of the job in Oman

Prevalence of diabetes:

Diabetess prevalence is quickly increasing in Oman over last few old ages. The first national diabetes study, which was conducted in 1991, showed that the prevalence of diabetes in topics 20 old ages old and above is 8. 3 % (Al-

Lawati et al. 2002) . It besides showed the impaired glucose tolerance trial prevalence was 10 % and impaired fasting glucose prevalence was 5. 7 % (DGP 2003) . Both figures were alarmingly high figures that necessities immediate control enterprises (Asfour et al. 1995) . 10 old ages subsequently, the 2nd national study showed that the prevalence of diabetes was 11. 6 % and that of impaired fasting glucose was 6. 1 % (Al-Lawati et al. 2002) . This is clearly demoing that the load of the disease has about increased by one tierce over a decennary. The prevalence of diabetes was higher among work forces. In 2000, it was 11. 8 % and 11. 3 % in work forces and adult females severally (Al-Lawati et al. 2002) . The diabetic instances diagnosed in Oman are chiefly of type II. This type constitutes about 95 % and type I constitutes merely 5 % (DGP 2004) . The prevalence is summarised in table one.

Year

Type of sample

Diabetess

prevalence

IFG prevalence

1991

Fasting blood sample

8. 3 %

5.7 %

2000

Fasting blood sample

11.6 %

6.1 %

Table 1: Prevalence of Diabetes and IFG in Oman in topics 20 old ages old and above harmonizing to national wellness studies in 1991 & A ; 2000.

Prevalence of diabetic complications:

The load of the disease can besides be measured by the prevalence of its complications. Many of diabetic complications do be in Oman in higher rates. Some of these are:

Diabetic oculus diseases:

The diabetic retinopathy prevalence in Oman is 14.39 % and it is the commonest cause of sightlessness in people age 30-69years (Khandekar et al. 2003) . It was besides shown the rate of glaucoma among diabetic patient was 8.87 % (Khandekar & A ; Zutshi 2004) . In both complications, the diabetic patients are at higher hazard. It could be easy drawn from these two surveies that a particular attention must be given to diabetic patients to cut down the ocular disablements.

Diabetic pes diseases:

It has been found that the diabetes is responsible for 51.8 % of all amputations reported in Oman (DGP 2004) . Foot complications are one of the most serious and dearly-won complications of diabetes. It is an pressing issue that need more attending.

Cardiovascular diseases:

It was shown in 2004 that most of diabetic Omani patients died as a consequence of cardiovascular complications (MOH 2005) . This is due to the fact that hazard factors for the development of macro-vascular diseases are often found in diabetic patients (DGHA 2003) .

Nephritic failures:

It was shown that 33 % of nephritic failure instances diagnosed in Oman are due to diabetes (MOH 2005) .

Factors behind diabetes in Oman:

Such high prevalence of diabetes is perfectly maintained by many implicit in factors. The chief factors are summarized in table two.

No.

Factor

1

Dietary form

2

Physical inaction

3

Corpulent or fleshy

4

Other behavioral hazard factors (e. g. smoke)

5

Akin matrimony

6

Familial susceptibleness

Table 2: Underlying factors behind diabetes

Oman has rapid socioeconomic developments that are associated with urbanization consequence. This consequence is really clear particularly in Muscat and secondly in Batinah part. This is due to the fact that more than 56 % of the population live in those two parts which represent merely 15 % of the entire country (MONE 2005) . The urbanization consequence is manifested in rapid life manners alterations such as alterations in dietetic form (High fat/ high salt/ Calorie dense diet) and decreased physical activity (DGHA 2003) . There was a pronounced displacement from simple traditional life styles to more westernized life manners. The physical inaction is high and its prevalence is 22. 5 and 3. 1 in males and females severally

(DGP 2004) . The rapid addition in auto ownership has led to further lessening in physical activity. Fleshiness and corpulence are closely associated with diabetes. It has been shown in 2001, 47. 4 % of diabetic patients either corpulent or fleshy (Al-Lawati et al. 2002) . In 2000, the age adjusted prevalence of fleshiness reached 16. 7 % in work forces, compared to 10. 5 % in 1991. In adult females the prevalence was 23. 8 % in 2000 compared to 25. 1 % in 1991. Both corpulence and fleshiness has markedly increased among Omani work forces during the past decennary, while a worsening tendency was seen among Omani adult females. The worsening tendency among females could be explained by increasing educational degree, worsening birthrate rates and improved consciousness of self image (Al-Lawati & A ; Jousilahti 2004) . However, the prevalence is still high for both sexes and need more attending through establishing effectual nutritionary plans and promotional life manner alteration plans (Al-Riyami & A ; Afifi 2003) . In add-on, smoke is closely associated with many non-communicable diseases and it is common in Oman. Recent studies for the prevalence of behavioral hazard factors among big Omanis have revealed a high prevalence of smoke (23 % male smoke and 1. 5 % among females) (Al-Lawati & A ; Hill 2001) . Another factor underlying the higher prevalence is akin matrimony between Omani. Arranged matrimonies are normally seen between first or 2nd degree relations. This will increase the familial heritage of diabetes (Al-Haddad Y 2003) . A familial susceptiblensness may besides explicate why diabetes has become an `` epidemic '' . In comparing to Caucasian and European populations with similar grades of fleshiness and glucose tolerance, Arabs are more insulin-resistant than Europeans. This

feature, which is a strong forecaster of diabetes, seems to be genetically determined in these populations (Al-Mahroos 2003) . Equally long as the above mentioned factors exist, the diabetic prevalence will be high. So it sounds logic controlling of these factors will cut down diabetic prevalence.

Diabetess is a existent wellness challenge in Oman:

From the above, it is clear that the diabetic load has increased significantly and at the same clip its underlying or lending factors do be strongly. This puts Oman 's wellness attention system at cross roads as it is witnessing an epidemiological passage from catching diseases to non-communicable diseases (DGP 2003) . This should be accompanied by a passage displacement in the system from commanding infective and childhood unwellness to face challenges of the twenty-first century in battling chronic unwellness such as diabetes, high blood pressure and fleshiness. One of the challenges is incorporating and bettering the quality of wellness attention provided to diabetic people. Presently, a significant proportion of the Ministry of Health budget is spent on direction of diabetes and its complications (DGHA 2003) . The passage from catching disease to non-communicable diseases is manifested clearly in morbidity and mortality indexs. It is shown in figure one there is a raising tendency in the per centum of non-communicable diseases part to the entire out patient section (OPD) visits. It increased from 42. 5 % in 1996 to make 53. 2 % in 2004. On the other manus, there is a worsening tendency for catching diseases part (DGP 2004) .

Figure 1: Catching and non-communicable diseases part to the OPD morbidity in 1996 & A ; 2004.

Inpatient morbidity of non-communicable diseases had besides increased in comparing with catching diseases over the last nine old ages as shown in figure two. They contributed approximately 36. 1 % and 39. 6 % of entire discharge instances in 1996 and 2004 severally.

Figure 2: Catching and non-communicable diseases part to the inpatient morbidity in 1996 & A ; 2004.

Out of these non catching diseases, diabetes is considered to be the 2nd prima cause of inpatient morbidity in male and female in the age group 45 old ages and supra after ischaemic bosom disease (MOH 2005) . The load is good demonstrated by the fact that diabetes mellitus is entirely responsible for about 9 % of all grownup infirmity admittances and 12 % of the grownup infirmity bed tenancy rate (Asfour et al. 1991) . Inpatient morbidity for diabetes has raised steadily from 1528 instances in 1986 to 3695 instances in the twelvemonth 2000 as shown in figure three (Al-Lawati et al. 2002) .

Figure 3: Number of diabetic instances registered in 1986 & A ; 2000.

Distribution of new diabetic patients harmonizing to the age groups is shown in figure four. It is shown in that about tierce of the diabetic instances are diagnosed at the 40-49 old ages group and a high proportion even after the age of 50 old ages (MOH 2005) . This indicates somehow that there is hold

in the diagnosing. This could be due either unavailable services or patients non be given to seek intervention early.

Figure 4: Distribution of new diabetic patients harmonizing to the age groups.

Diabetess care in Oman:

Ministry of Health has ensured the wellness attention to be readily accessible to all. It is free of charge and delivered through more than 156 wellness establishments (MOH 2003) . Diabetic attention is ensured and provided through National Diabetes Prevention and Control plan. The 6th five twelvemonth program (2001-2005) has identified diabetes as a major precedence (DGP 2003) .

National Diabetes Prevention and Control Program and its accomplishments:

This plan was initiated in 1991 and is managed by the section of non-communicable disease surveilliance and control represented by diabetes bar and control subdivision. The caput of this subdivision is the national plan director. The plan is responsible for developing constabularies and implementing schemes for diabetes control (Al-Lawati et al. 2002) . It aims to supply diabetic attention in all wellness degrees: primary, secondary and third in close coaction with each other to guarantee an effectual referral system. Its aims are (DGHA 2003) :

Prevent the disease susceptible persons and communities.

Early sensing of persons at high hazard.

Keeping a better quality of life for diabetic patient and cut down the long term complications and therefore cut down its morbidity and mortality.

Provide suited and quality wellness instruction to diabetic patient 's relations and the community.

The aims are crisp and comprehensive. They are directed foremost towards the bar of the disease and secondly to early sensing through testing plans. In instance these failed to be fulfilled, an of import aim is to keep a better life quality to the patient. Many accomplishments took topographic point over the last 14 old ages Such as (EMRO 2005) :

The diabetic control plan was integrated in primary wellness attention in 1995 (MOH 2003) . So that all basic services required for diabetic patients are available at the primary wellness attention establishments through the constitution of mini diabetic clinic. This has optimized the direction of diabetes at the primary wellness attention degree (Al-Lawati et al. 2002) .

A good advancement in rating of national diabetes registry in which all diabetic patients are registered. Registers are maintained on a regular basis in which all patient inside informations are mentioned. This registry was initiated foremost in 2000 (DGHA 2003) . It is a good mechanism for follow up within the catchment country of wellness establishment.

Annual preparation workshops for the staff (Doctors/ nurses) . This is of great value in updating the cognition and experiences of the old staff and introduces the new staff to the plan. These workshops could besides be used

to work out challenges confronting the regional plan. They are conducted at territory and provincial degrees.

Constitution of a policy for oculus attention for all new diabetic patients.

There was a existent demand for such policy as the diabetic oculus diseases are increasing in Oman.

The plan director at the cardinal degree is responsible for organizing the activities between different degrees. A squad at the primary wellness attention degree provides the diabetic attention. Antidiabetic drugs and insulin are being made available free of charges to all Omani (Al-Lawati et al. 2002) . This squad consists of doctor, nurse, dietician / diet technician and wellness pedagogue as shown in figure five (DGHA 2003) .

The diabetes squad at the primary wellness attention

Health Educator

Dietician / Diet technician

Nurse

Doctor

Take basic measurings

Maintain patient records.

Provide list of defaulters.

Provide Diabetic attention

Maintain diabetic register

Train other members

Inform and educate patient on basic and exigency state of affairss.

Health instruction follow up.

Provide dietetic advice.

Advice patient how to cover with hypoglycemia.

Figure 5: The construction of the squad members and their chief duties.

The construction of the squad is good defined with clearly demarcated functions and duties which are designed to undertake the most pressing issues required in the diabetic attention. The squad is supervised by a regional diabetologist at the secondary wellness attention degree. There are nine regional diabetologists in Oman ; one in each part. In add-on, the regional diabetologist should develop the primary wellness attention doctors on the basic direction of diabetes and this may include regular visits to primary wellness attention establishments in his/her part.

Prevention of diabetes in Oman:

Ministry of Health has adopted many bar schemes. The bar is considered as precedence and it is achieved through three degrees (DGHA 2003) :

Primary bar:

This is done through commanding the implicit in causes and hazard factors. It aims at increasing consciousness about diabetes by mass instruction candidacy, telecasting and wireless. The diabetic squad at the primary wellness attention degree conducts most of the wellness instruction activities.

Secondary bar:

This aims at early sensing of instances. It includes screening individuals at high hazard for diabetes and its complications every three old ages. The people at hazard are corpulent (Body mass index > 30 Kg/m) , first grade with diabetes mellitus, history of gestational diabetes mellitus, high blood pressure and dyslipidemia.

Third bar:

This includes proper direction and any action taken to forestall complications. The schemes for third bar involve testing for early complication phases, rigorous metabolic control, instruction and effectual intervention.

Constraints to a better diabetic attention:

Although there are a batch of good accomplishments of the diabetic attention, many restraints confronting the better attention such as:

Need for a National diabetic Centre:

There is no national diabetic Centre in Oman. All complicated instances end up in the medical wards in the third infirmaries. This is particularly of added

importance as the load of disease is increasing. It is an pressing issue to set up a diabetic Centre in which all the diabetic instances will be evaluated and managed by following the same guidelines. The diabetic Centre should be besides responsible for carry oning preparation workshops and besides bring forthing studies and surveies.

Inadequate installations for direction of diabetic pes:

As the figure of diabetic instances addition, figure of diabetic pes instances besides increases. So far no organic structure is specialized in diabetic pes attention in the Sultanate and the intercession or direction is still non effectual. Merely one workshop was conducted in this respect in December 2004 but it was merely an introductory workshop and the participants were merely staff nurses and no physicians (IDF 2004) . There is a existent demand for more expertness and extremely specialised techniques in diabetic pes attention. This will finally better the patient quality of life.

How can the diabetic attention be improved further in Oman?

This inquiry can be answered merely by analyzing the precedence work countries. This analysis finally will take to many future schemes that can be used efficaciously in bettering the diabetic attention. The top of import schemes are:

Prevention of diabetes through life manner alteration:

The most effectual manner of bettering the diabetic attention is by forestalling the disease. This is the first measure and can be carried out by sing bar of diabetes through life manner alteration as a precedence. It is

logic as the type II being the most common type of diabetes and it is chiefly due to life manner alterations and besides its prevalence increasing twelvemonth after twelvemonth. Empowering the community to take control over their ain wellness could carry through this. As a consequence, wellness life manner alterations can be implemented at community degree in the signifier of healthy life manner undertakings. Through these undertakings the wellness of people can be promoted by authorising them and affecting them in planning and taking determinations about different ways of accomplishing a better life manner. One such scheme is guaranting the active engagement of community leaders particularly on the international diabetes twenty-four hours, which is on the 14th of November every twelvemonth. An illustration of this was conducted in Oman in what is called Nizwa Healthy Life Style undertaking. However, this is still a new construct and more attempts should be done in this country.

An illustration of a factor that needs more attending from the bar point of position is fleshiness. It appears to be the most of import individual mark variable to command if the incidence of diabetes is to be reduced. Although impermanent decreases in weight can be achieved by dietetic restraint, long-run control of fleshiness appears to depend on keeping higher energy outgo is the most of import. In Oman, most businesss are sedentary, walking and cycling are the two signifiers of activity through which energy outgo can most easy be increased. However, cycling is non at present culturally acceptable. This highlights the trouble of change by reversaling the inauspicious effects of lifestyle alterations. Alternatively, physical activity

could be increased by regular engagement in exercising preparation plans, but long-run engagement in such plans would necessitate high degrees of motive (Al-Mahroos 2003) .

Early on and effectual showing plans:

A 2nd measure towards a better attention is the executions of early and effectual showing plans. These plans should be regular and available in all different wellness establishments. Specific standards should be set up for the showing. The showing could be taken up one measure in front by sing the community and test the people in their places. This is important because a comprehensive population-based programme is the most cost-efficient attack to incorporate this emerging diabetic epidemic (EMRO 2005) . An illustration of this could be the organisation of diabetic run in the community. This will pick the instances instantly taking to early sensing and direction.

Combined diabetic clinic:

Another measure is of class the better direction. The ultimate jail of the direction is to forestall the complications. At the same clip the direction of diabetic complications require many different fortes viz. diabetologist, physician, nephrologists and gynecologist. Keeping these issues in head, a better direction requires a multidisciplinary attack. This can be achieved by combined diabetic clinic in which diabetologist and another specializer harmonizing to the status or the complications see the patient at the same time. These will better the attention by guaranting the understanding of the concerned physicians about the intervention program.

Diabetic pes attention:

Another issue of bettering the diabetic wellness attention is through the betterment of diabetic pes attention. The importance of this issue comes from the fact that the diabetes is responsible of 51. 8 % of all amputations reported in Oman as mentioned above. The diabetes subject for 2005 is diabetes and pes attention. It will be a cost effectual attack because the diabetic pes is a important economic job, peculiarly if amputation consequences in drawn-out hospitalization, rehabilitation, and an increased demand for place attention and societal services (IDF 2005) . The purpose is to cut down by half the figure of foot amputations caused by diabetes in the state (IDF 2004) . This can be achieved through a attention scheme that combines: bar ; the multi-disciplinary intervention of pes ulcers ; appropriate organisation ; close monitoring, and the instruction of people with diabetes and health care professionals, it is possible to cut down amputation rates by between 49 % and 85 (IDF 2005) .

Coordination between MOH plans:

Last, there should be coordination between different MOH plans in order to guarantee that all diabetic bar is good covered. These include nutritionary plan, antismoking plan and plan to advance physical activities.

Pressing issues to be raised up:

It is of import to implement effectual diabetes surveillence system in Oman. It could be used as an earlier anticipation of the epidemic nature of diabetes and its features. It is besides a necessary first measure toward its bar and control, which is now recognized as an pressing precedence (King et al.

1998) . Furthermore, it is indispensable to set up a quality confidence system. Such system will take to uninterrupted rating which is important to the success of national diabetes control plan. It should concentrate on both procedure steps and result steps (EMRO 2005) .

Rehabilitation of diabetic patients is indispensable and a precedence. It is a cost effectual attack. This is because many persons with diabetes may develop disabling complications with high associated costs (DGHA 2003) .

Decision:

Oman is undergoing demographic and socio-economic alterations, which favours an addition in the load of diabetes presenting a hard challenge. The diabetic control plan is good in topographic point and bar activities are traveling on in all different degrees. However, there is a existent demand for set uping quality confidence mechanisms in topographic point for the plan. As portion of this it is besides necessary to set up a Centre of excellence at the third degree which could supply the needful advanced diabetic attention and besides map to sets criterions in the attention of diabetics. It is besides required to concentrate every bit good augment attempts for better bar in order to minimise the underlying modifiable hazard factors. Ultimately, these steps could cut down the diabetic prevalence or at least command it at this degree.