The statistical feature of Australian population is well documented. The surveys done after 1998 lead to a shocking news that a large increase is there in the death of young and middle aged Indigenous as well as non Indigenous population of Australia. These are mainly due to pneumonia and cardiovascular diseases. Then the deep explorative inspections found out the risk factors such as smoking, alcoholism and diabetes. Among this diabetes plays a vital role in that and so hereby exhibit detailed findings regarding the etiological factors, interventions, treatment and the role of nurse in diabetes mellitus.

Diabetes mellitus is a metabolic disease which occurs due to the decreased production of insulin or inability to use it in the body which leads to an increase in the blood glucose level (hyperglycaemia). The diabetes mellitus is mainly classified as three. They are: Type 1 Diabetes Mellitus: This is the insulin dependent diabetes mellitus, which is also called as juvenile onset diabetes mellitus. Type 2 Diabetes Mellitus: This is the non insulin diabetes mellitus, also called as maturity onset diabetes mellitus. Gestational Diabetes Mellitus: This is another type of diabetes mellitus which occurs during the time of pregnancy (AIHW, 2010).

The actual cause of diabetes mellitus is not clear. But there are several factors which may or may not influence the formation of diabetes mellitus. They are: Hereditary causes: If a family is having diabetes since long years, then the hereditary can play a major role in the cause of diabetes. A chance of 25% is purely present in these cases. As because the gestational diabetes is common, there is a chance of transfer of the diabetes to child if necessary precautions and management has not taken. Hereditary evidences its risk from 5 to 11% in a total population affected from diabetes. Diet: Diet is an important factor which influences diabetes mellitus. The current life status is leading to an increased intake of harmful elements such as carbohydrates, fats etc. This can lead to a decreased production of insulin from pancreas which ends up with a raise in glucose level. The overeating and lack of exercises from childhood can lead to obesity which favours a vital role in the growth of diabetes.

The further reasons for being affected by Diabetes Mellitus are: Obesity: Obesity plays the most important as well as the vital role in the cause of diabetes mellitus. Many people are overweight when compared to the height. It is commonly seeing in population above 40 years, where the fat content in the body is high and are at a risk of diabetes. Viral infections: Certain viral infections also can cause diabetes mellitus. These viruses can infect the pancreas which leads to an insufficient insulin production ends up with an increased blood sugar level and can cause diabetes mellitus. Age: Age is directly related to the growth of diabetes. Mostly people above the age of 40 years are suffering from diabetes as because of the decreased body function, tend to an increase in the body weight and can lead to an effect of pancreatic dysfunction. Emotional stress: Nowadays the daily routine of population becomes a busy lifestyle and is having lot of stress. These exertive works creates irregular lifestyles which severely affects the metabolism of the body. Even a grief, anxiety or worry can makes changes in the blood glucose levels. Smoking and alcoholism: The population having an increased habit of smoking as well as alcoholism are prior to risk on diabetes mellitus. This can lead to retinopathy and joint immobility (Diabetes Mellitus-Information, 2011).

The interventions of the diabetes mellitus can be explained on the basis of the plans and implementations carrying out according to different levels. They are:

Upstream Interventions: Several national programs are taken place in the prevention, diagnosis and management of diabetes mellitus. The upstream interventions can be explained on the basis of these programs and their practices. The diabetes management in general practise is mainly focusing on the support for the people those who are suffering from type 2 diabetes. It is the recent guideline which mainly plays a vital role in the production and identification of proper sources delivering the management of type 2 diabetes mellitus in the general setting of practice (Diabetes Australia, 2011).The national guidelines for the management of type 2 diabetes based on the evidence includes lot of guidance’s which are developed in 2009 creates a funding agreement in between the Department of health and ageing and the Diabetes Australia guideline development consortium. These evidence based guidelines elaborates:

The role of chronic kidney disease in type 2 diabetes

Case detection and diagnosis of type 2 diabetes

Patient education

Blood glucose control

Primary prevention (National evidence- based guidelines, 2011).

The next guideline based on prevention, identification and management of foot complication is focusing on:

Prevention programs

Optimal foot care

Regular foot examination

Intense glycaemia control and patient education

Manage properly and early institution for the antibacterial therapy

Diagnosis of osteomyilitis by using MRI for patients with diabetic foot ulcers

Uses of novel therapies include hyper baric oxygen therapy and skin equivalents.

The indicators and outcomes for the education regarding diabetes is mainly establish a framework of the national certified goals, indicators and outcomes for diabetes education. It remains as a platform for evaluating and refining the effectiveness, quality and consistency of services which are for diabetes education. This can be applied at a regional level, local service level or national level (Diabetes Australia, 2011).

Midstream Interventions: On 14 November 2010, the International Diabetes Federation published a program called a call to action on diabetes. This is a framework which expresses an investment for the control of diabetes mellitus. This includes: An improvement for the outcome of the patients those who are suffering from diabetes by providing essential care to most of the people, improving the delivery of health care systems and providing supportive care for the patients those who are suffering from the complications of diabetes. The prevention of the development of type 2 diabetes by approaching the health in all policies, improving physical activity especially including pregnant women and children, maintaining healthy nutrition and considering appropriate high risk prevention programs. Stop the discrimination against those who are having diabetes by enabling their rights and responsibilities; increasing the public awareness of diabetes, reducing the diabetes related stigma and trying to empower the diabetes patients to be at the centre of the diabetes response (International Diabetes Federation, 2011).

Downstream Interventions: The downstream interventions are nothing but the planning’s and implementations which has to be followed by the individuals. The several processes includes in this are: The management of lifestyle by nutrition, exercise, habits etc. The people who are suffering from diabetes have to maintain a low fat diet, in addition to that a plenty of high fibre rich complex carbohydrates. This includes whole grain, breads, cereals, dried beans, lentils, fruits, vegetables etc. Moderate exercises lower the blood sugar. It improves the insulin sensitivity and will help to reduce the weight. Weight loss is the most important management of diabetes mellitus(Empowering Australia, 2011). Exercise also helps in lowering the high blood pressure. The diabetes may not be able to manage by diet and exercises. Then there is the need of medication. The medications will help to maintain blood glucose within its limits. The blood glucose has to be monitored continuously. Blood glucose test kits are available and it has to be enquired with a doctor or diabetes educator regarding the period of monitoring has to be done. Regular tests of kidney function and heart diseases like cholesterol with blood glucose over a period of time has to be checked. It is also mandatory to do the eye tests (Empowering Australians, 2011).

The treatment for diabetes includes medical as well as surgical treatment. The medical includes several drugs which are mainly focusing on the measures to decrease obesity. Benzphitamine and phendimetrazine are some diabetic drugs, but which has to be used with caution. The other drugs which are using to control weight are diethylpropion and phentermine. Another atypical antidepressant called bupropion and an anti epileptic drug called topiramate are also using to decrease the weight. The most common drug which is in patients suffering from type 2 diabetes is metformin. This can control the glucose level as well as weight gain. Now many of the people suffering from diabetes are turning to different surgical management. The individuals with a BMI of 40 or above without other health problems are capable for surgical procedures. The major surgical procedure for this is gastric banding, vertical blended gastroplasy, gastric bypass and ileopancreatic bypass. The outcome of these procedures varies from patient to patient (Derek. Simeon, Jerold, 2004).

The role of nurse in the management of diabetes includes lots and lots of steps. The community health can play the most important role in the prevention, identification and management of diabetes mellitus. The community health nurse should have a holistic approach towards diabetes mellitus. She has to find the resources as well as people to help patients those who are suffering from diabetes. She has to realize the importance of nursing role in the management of diabetes. The community health nurse should have continuity in the quality of care giving to patients. She has to assess not only the health but also the social problems (Lundy & Janes, 2009). The community health nurse should obtain a goal in the management of diabetes mellitus. She has to update the physical assessment, immunization, investigation reports etc. She has to identify the underlying causes of diabetes such as lifestyles, dietary habits etc and should monitor the blood pressure, pulse, urine output, blood glucose (Dulmus & Paglicu, 2005).

The community health nurse can assist the people with diabetes to maintain healthy nutritional habits. She can teach them the necessity and importance of proper food intake in the prevention as well as management of diabetes (Bales, C.W & Ritchie, C.S, 2009). The community health nurse can provide information to the population regarding the onset as well as further management of diabetes. She can arrange a counselling to population about the role of nutrition in health promotion and not only that but also regarding the prevention of illness (Basavanthappa, 2005). The community health can assist the population to understand the incidence, causes, pathophysiology, assessment, diagnosis and prevention of diabetes. She can also assist in treating with nutrition, drug and insulin therapy, complementary and alternative medicines, complication management, identifying special population and change in behaviours according to latest researches. The community health nurse can play major role in the daily care regimens includes self monitoring of blood glucose and urine ketone levels, diet, skin care, foot care, physical activity and more (Munden, 2007).

There are different types of interventions which we can modify for the appropriate and effective prevention, identification, treatment and avoidance of complications. In Australia the basic elements in the role of nurse are mainly focussing on a public health centre. This gets attracted by the common wealth government. The common wealth government is planning to make all the easy way to increase the accessibility of Medical Benefits Schedule (MBS) and Pharmaceutical Benefits Scheme (PBS). The government is trying to improve the role of community in the management and prevention of diabetes. They are planning to facilitate the practise settings and to develop a regulatory environment. Their steps are planned to focus on the better and valuable outcomes in the community. The government is trying to obtain and improve the evidence of researches. They are improving the evaluation which can cause a good impact on their studies (Mcmurray & Clendon, 2010).

The type to diabetes mellitus is the most threatening disease amongst Indigenous as well as non Indigenous population. Lifestyle factors show a highest reflection in the causative factor of diabetes mellitus. Several interventions have been following in national level, community level and by the individual itself. The government is opening its eyes to upgrade the interventions. Role of nurse is the major thing which needs its highest contribution in the management of diabetes. So it is crystal clear that the measures have to be followed and upgraded for a safe living of the Australian as well as other population.

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