The Sugar Man: an interactive model for diabetes education

Michael Porter, Regional Diabetes Co-ordinator, Country Health SA

Introduction

The prevalence of diabetes in rural and remote areas of South Australia is much higher than metropolitan Adelaide, from July 2004 – June 2005 diabetes in country SA was 10.2% compared to Metro Adelaide at 7.8% (South Australian Monitoring Surveillance System). This is compounded by the fact that people with diabetes in rural South Australia visit their doctors far less than people with diabetes in metropolitan Adelaide ‘June 2005: 60.6% of diabetics in metropolitan Adelaide visited their GP compared to 54.1% of diabetics in country South Australia (Diabetes Clearing House, 2006)

It is well documented that people living in rural and remote areas of South Australia have less access to specialist medical services and often have to travel long distances when they do. Although there are some fantastic programs in the pipeline to reduce this inequity in health service delivery such as the ‘broadband project’ (project between Women’s & Children’s hospital South Australia and rural and remote areas of South Australia) there remains a big problem with delivering an appropriate primary health care and primary care service in rural and remote areas.

The Aboriginal population in the rural and remote areas of South Australia who do see a specialist or visit the clinic in their community often struggle to understand what is a very complex condition (diabetes). This leaves them confused, frustrated and angry because they don’t know where to start with their management regime. This inturn leads to non compliance and puts them at high risk of developing diabetic complications and affects quality of life. We have to simplify the way we deliver diabetes information not only for the Aboriginal communities but for all newly diagnosed diabetics in order for them to understand diabetes and make the necessary changes to their life styles (survival skills).

The Sugar Man project is a model designed to do just this! It is an interactive model that explains what diabetes is in a fun and simple way. This model goes a long way to bridging the cultural and intellectual gaps that we face when educating people on diabetes prevention and management. The Sugar Man program has proven to be a valuable tool in Diabetes health promotion and primary health care in the Far Northern and Far West area of South Australia. Because of the models fun activities it is proving to be a valuable primary health care tool at the schools. This enables the children to learn a little about diabetes and begin to make personal choices about their own health.

How the Sugar Man came about

As the Regional Diabetes Co-ordinator for the Northern and Far West Region of South Australia my first job was to travel around the region and assess the current Diabetes services that were being provided in the region. I began to conduct Diabetes clinics at the Hospital or clinic sites around the Region and I soon discovered the local Aboriginal communities were not attending the clinics for their appointments. As a result they were not getting any education or reviews on their current diabetes management regimes and they were not getting the necessary intervention needed to reduce the risk of diabetic complications.

Because the local Aboriginal communities were reluctant to use the clinics and hospitals regional diabetes decided to take the Diabetes education sessions out to the communities in an attempt to reduce the inequity in service delivery and empower the local Aboriginal community to make informed choices about Diabetes prevention and management. We began with the standard Diabetes handouts that were specially developed for the Aboriginal population, but we soon discovered that the educational material we were handing out was unclear to them and many just refused to take them.
It was not our intention to establish whether or not all of the group could read. Although we did use mostly visual handouts with limited wording in order to deliver culturally appropriate education sessions.

Story telling is a traditional way of passing on information in Aboriginal culture and some Aboriginal people are very experienced and highly regarded as story tellers. Health information stories may be shared with a group and people can compare stories and experiences, empathise, seek common ground and make individual or collective decisions. (Bush Book 2006)

Like many before us we attempted to simplify what is a very complex disease. Our first few attempts barely raised an eyebrow but then we began to be more visual and interactive in our approach to the presentations and the feedback was very positive. So we set out to build on the current felt man model (a small felt man shape with attachable organs) and created the ‘SUGAR MAN’ we called him the Sugar Man because the majority of the Aboriginal population still referred to Diabetes as ‘sugar illness’ and by referring to diabetes as sugar I was guaranteed to reach the whole of the group.

While I was conducting the Diabetes clinics at various sites around the region I met with some very experienced Aboriginal story tellers. They told me their personal stories of sugar (Diabetes) how they developed the condition and how they were currently managing it and they also shared some amazing traditional Aboriginal stories with me. It was at this point that I realised just how important traditional Aboriginal story telling was or could be in our education sessions.

I began to share my own story and experiences about sugar as I have had type1 diabetes for over 20 years, they were able to compare their own experiences with mine and we were able to make a collective decision on their Diabetes management and control. It was important for me to do this as I had to listen to their experiences and then they would listen to mine. This put us on an equal footing and equal partners.

A common Aboriginal experience has been public agencies and health professionals assuming positions of leadership on behalf of Aboriginal people. (M Durie 2004)

This undermining of Aboriginal leadership has had a detrimental effect on the way the local communities view our current health system Aboriginal leadership is an important part of Aboriginal culture.

As I studied the local culture it became quite apparent that the local communities were primarily concerned with the present and the past, rather than the future. Because they were not concerned with the future and long term goals they were less than enthusiastic about planning for their future health. I had to make a connection between the education sessions I was about to do and connect them with the present and the past in order to encourage change. I consulted with a number of local and well respected elders on the best way to present Diabetes education to the community.

It may be appropriate to arrange information sharing sessions with particular groups and consider the best ways to present information and to document the sessions. (How Two, Health Promotion, Bush book. Vol 1, p5)

The Sugar Man is born

We knew because of the current health crisis in the rural and remote Aboriginal communities that we had to be extremely effective with our education sessions. They had to be simple, easy to understand, culturally sensitive and contain enough information in order for individuals and groups to make change. The opportunity arrived when the Leigh Creek Hospital had decided that they were no longer prepared to wait for the local Aboriginal population to present with life threatening situations. They wanted to take the hospital to the community!

The first step was to arrange health check and education forum at a common place always suggested by the local community. The goal of these sessions was to build a greater link between the health service and the community starting with very informal meetings ‘meet & greet’. I was allowed to do a small 10...
minute presentation with minimal or no handouts as instructed by the local community. So after thinking about the power of visual and verbal techniques we built a 30ft outline of a man out of rocks from the local creek.

Spoken languages are supplemented by other forms of communication as other means of symbolism are used. The means of communication, as well as the content, reflects the culture in which it takes place. (WH Edwards, 1989. ‘Communication in Aboriginal Societies p.77)

We chose to build the ‘SUGAR MAN’ out of small rocks because I had discovered the local Aboriginal population ‘Adnyamathanha’ meant people of the hills and rocks. The idea was to have an interactive session with only one message: to highlight the effect of sugar in the body and insulin action in Diabetes control. This was done by showing the community how a popular soft drink was broken down in the body and what the normal response of the body was. Then we described what happened in the case of diabetes and what the differences were. The props used were 10 giant cubes of sugar, 10 wooden keys to represent insulin action. Some members of the group were encouraged to play the part of the insulin key and they chased the members of the group who were given the sugar and took them into the muscle. We explained insulin resistance, the importance and action of oral hypoglycaemic agents (diabetes medication) and talked briefly about the role of exercise in diabetes control. The organs: the brain, the stomach, the pancreas, the blood flow and the muscle were all marked out with thick coloured rope. Because the presentation was mainly visual it was clear that the level of understanding was much higher than it had been with other educational material

Observing and imitating is a legitimate way of informal learning in Aboriginal culture. (R Carroll ‘Aboriginal learning style’ 2006)

The feedback from this very simple 10 minute presentation was very encouraging. The local community commented on the powerful visual component being important and the fun element of the presentation helped them to understand sugar and insulin key action in the body. I began to think about using this type of model for future presentations to highlight the complications of diabetes and how we can prevent a lot of them. The Elders that were in attendance during this presentation stated that they were all concerned about the children and how important it was to break the cycle of sugar. Pauline Coulthard from Hawker talked about the importance of school education back in 1989

A lot of young Adnyamathanha people are Diabetic. I blame it on the diet. I suppose they should be taught and shown, especially in schools, to eat the right sort of foods. Even now, no matter what you eat, it’s bad for you. (Coulthard, 1989, cited in ‘The Adnyamathanha people’ p.239)

The local Pika Wiya Health Service in Port Augusta invited me to do the Sugar Man presentation at the 2006 Croc Fest in the Pika Wiya tent. Over the two days that the Croc Fest was on I got the chance to talk to a lot of children about the prevention Type 2 diabetes and healthy choices. I couldn’t build a 30ft
rock man every time I did the presentation so I decided to paint it onto a giant canvas. It was important to keep the model as big as I could and make it interactive. Nearly all of the Aboriginal stories I had listened to involved giant objects and creatures like the rainbow serpent so we imitated this feature in the design. It was also a chance for me to develop some fun activities to help explain insulin action and the effect of diabetes on the body. The activities were soccer ‘the child was the insulin key, the soccer goal was the muscle and the object of the game was to kick the ball (sugar) into the muscle. I would then stand in front of the muscle (goal) and describe myself as insulin resistance/diabetes and I was attempting to stop the sugar from reaching the muscle. This message was repeated with other games like quoits and throwing tennis balls into a net. I was able to increase the difficulty of the games to highlight insulin resistance and how diabetes affects the normal insulin action. The children enjoyed the fun interactive games and talking to them after the sessions it was clear that they had a good basic understanding of diabetes and how they could reduce the risk of developing it in the future.

The Sugar Man presentation can be adapted for all the different age groups. From 6–10 years of age it was important to use more fun activities for them to understand diabetes. In the older groups 11–16 years of age the children were more interested in the physiology of diabetes and the difference between type 1 and type 2 diabetes. The evaluation process used was in the form of a picture/painting describing what diabetes was. The paintings received so far indicate a good basic understanding of diabetes and how it can be prevented.

Conclusion

Regional diabetes and the Sugar Man are currently on tour; we intend to present at all the schools in Port Augusta and the region by June 2007. The feedback from the schools visited already has been very positive and the children enjoy learning about diabetes in a simple and effective way. Type 2 diabetes is on the increase in Australia and is proving to be the leading cause of morbidity in the Aboriginal population. Our children face greater risk of developing Type 2 and other chronic conditions with the
ongoing issues of obesity and inactivity in Australia today. There is no cure for type 2 diabetes only good management. We have proven that as a nation we our not managing diabetes and the complications very well. Prevention is the only cure so we have to be more proactive with our primary health care message. We have the chance to save this and the next generation with a clear message that type 2 diabetes and other chronic diseases can be prevented.

The Sugar Man has taught me that in order for the message to be effective it has to be simple. The foundations of knowledge have to be laid before we can build on them. I challenge you all to think of a simple, fun and effective way of delivering your health message and play your role in turning the tide of suffering and despair.

References


‘Ways of sharing health information’

Presenter

Michael Porter is a registered nurse and credentialed diabetes educator currently working in the far northern and western region of South Australia. In his role as the regional diabetes co-ordinator he travels with the Flying Doctor Service holding diabetes education clinics at various sites around the region. He also talks with high-risk groups about prevention and management of type 2 diabetes. Michael is passionate about health promotion and prevention of type 2 diabetes and complications in all Australians. He has been a type 1 diabetic for over forty years and believes the personal experiences with diabetes are driving him to make the changes needed to turn the tide.