

The Rural Diabetic

Introduction: Diabetes is one of the leading causes of deaths, in 2012; 1.5 million deaths were directly attributed to diabetes worldwide (World Health Organization, 2015a). In New Zealand diabetes is a major health issue as it currently affects 1 in 17 adults and leads to multiple long-term complications (Ministry of Health, 2013). Effective diabetes care and management is multidimensional. Meeting recommendations for diabetes care can be challenging even under optimal circumstances, and even more challenging in rural areas because of the multiple barriers they face (Hale, Bennett & Probst, 2010). These barriers put them at risk of having uncontrolled diabetes and developing long-term complications. *Question: "Does being a diabetic living in a rural/remote area result in poor and unmanaged diabetic care and development of long term complications?"*

Literature: barriers for rural diabetics

Cultural health perception: Self-survival and a 'toughen up' attitude are characteristics that are valued within the rural community. They connect their health to productivity and being able to carry out daily tasks. They will only see health professionals for curative reasons rather than preventative procedures such as the annual diabetes check (Smith, 2004). The rural culture is seen to affect diabetic care as shown in studies. Results showed that of 84 rural diabetics, 81% reported that they would look after their diabetes more if they had symptoms of feeling worse, 9% reported feeling worried or ashamed of their diabetes (Simmon, Bourke, Yau & Hoodless, 2007). Rural diabetics were more likely to have developed retinopathy and foot sores taking more than four weeks to heal. (Hale et al., 2010).

Environmental factors 1) Time and distance to travel to: health services, affordable healthy foods and recreational exercise facilities

2) Occupational injury hazards

Socioeconomic factors

Low level of education and low income is directly associated with poor health status (Keleher, 2007). Studies show that rural residents with diabetes have lower levels of educational attainment and greater likelihood of being in the lowest income group, this will therefore affect the diabetic care they receive (Hale et al., 2010).

References

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Diabetes

Diabetes is a chronic disease, characterized by increased levels of blood glucose. Type one diabetes results because of deficiencies in insulin secretion and type two occurs when the body cannot effectively use the insulin produced (Craft, Gordon & Tiziani, 2011). Insulin is a hormone that maintains and regulates glucose in the blood, without it the body cannot utilize glucose for energy (World Health Organization, 2015b).

Long-term complications related to poorly managed diabetes include:

- 1) Neuropathy/ foot amputation
- 2) Cardiovascular disease
- 3) Blindness/ retinopathy
- 4) Kidney failure
- 5) Skin conditions

Recommendations

Cultural:

- 1) the government should take into account sociocultural issues which affect health e.g. the rural culture when allocating health services and funding.
- 2) Appropriately define and distinguish between levels of rurality. By doing this it assists governments in assigning resources, funding and services that is appropriate to the given rural population and their needs.
- 3) Nurses should adapt their practice to the rural context and culture so that they may provide effective diabetic care. It may be helpful for nurses do a health profile of the rural community. By doing this they will be able to provide nursing care that considers the patients' environment and culture (which both affect health outcomes).

Environmental factors

- 1) Telemedicine: the use of information and communication technologies e.g. computers, internet and cellphones. Telemedicine benefits include providing consultation that eliminates transport barriers, maintains patients financial resources and increases accessibility to specialty services (WHO, 2010).

Socioeconomic factors

- 1) Create supportive environments to make the healthy choice, the easy choice. To do this healthy foods need to be accessible and affordable. Studies have demonstrated that an individuals' choice to choose a healthy diet is not affected by knowledge but rather by accessibility and affordability (Ferguson, 2008).
- 2) Ensure that health services are both accessible and affordable. As fees are seen by rural diabetics as a major barrier to diabetic care (Simmons et al, 2007).

Conclusion: Diabetes is a leading cause of deaths, it contributes to the development of co-morbidities. Rural residents with diabetes experience multiple barriers that puts them at an increased risk of having uncontrolled diabetes that leads to long term complications, therefore it is important that we as health professionals are equipped with knowledge on how to recognize & eliminate these barriers. – **By Catrina Del Rosario**

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Rationale: I chose to present my literature review in a poster form as I felt that my recommendations were best presented in a way that would inform the public about the barriers that rural diabetics faced. I felt that although my recommendations presented ideas that would help to decrease the risk of rural diabetics from developing long term complications, they were recommendations that were not achievable by just one person but rather by large scale social, cultural and governmental changes. Health services need to acknowledge the cultural needs of the community and the individual when planning health care. Health services and health professionals need to incorporate social, political, economic and environmental factors when organizing health services so that they are appropriate for the given population (WHO, 2015d). Therefore by presenting my literature review in a poster form, this will help to raise awareness in the public about how to promote these changes that will improve outcomes for diabetics living in rural areas.

PECOT category	Information relating to question	Explanation
Population	Diabetics living in rural/remote area	I decided to focus on diabetics in a rural/remote area, as rural residency may affect diabetic care and development of long term complications.
Exposure	Having a diagnosis of diabetes	This ensures that only those articles relating to people who have an actual diagnosis of diabetes are included and those with no diagnosis, presumptive or glucose intolerant diagnosis are excluded.
Comparison	Not living in a rural/remote area	This is used as a comparison to exclude those that do not have rural residency.
Outcome	Poor and unmanaged diabetic care and development of long term complications	Since we want to know if being a rural resident with diabetes results in poor and unmanaged diabetic care and development of long term complications, then this is the outcome in question.
Time	Time	Not relevant in this particular clinical issue.