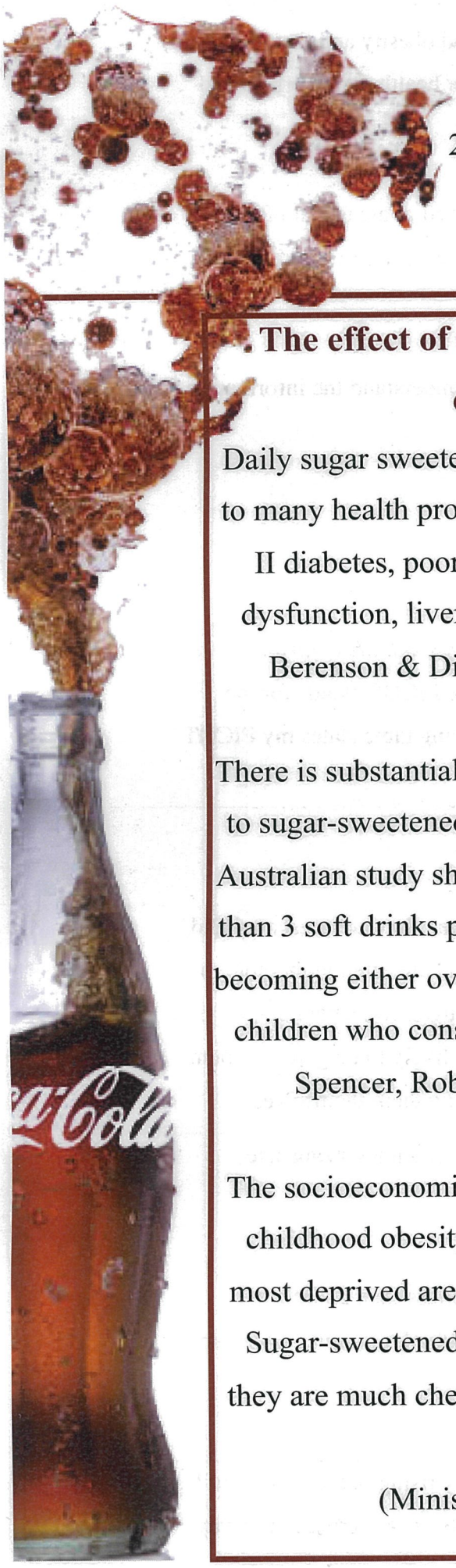
Is childhood obesity related to consumption of sugar-sweetened beverages?

Introduction

The rates of childhood obesity within New Zealand and world-wide are rapidly increasing. The Ministry of Health states that since 2006/07 the childhood obesity rate of children aged 2-14 years old increased from 8% to 11% in 2012/13 (Ministry of Health, 2014). With that in mind, the impact of the consumption of sugar sweetened beverages as opposed to milk or water on childhood obesity was explored.



The effect of sugar sweetened beverages on childhood obesity

Daily sugar sweetened beverage consumption contributes to many health problems, some of which are obesity, type II diabetes, poor oral health, osteoporosis, metabolic dysfunction, liver disease (Freedman, Mei, Srinivasan, Berenson & Dietz, 2007, as cited in Kavey, 2010).

There is substantial research that has been done in relation to sugar-sweetened beverages and childhood obesity. An Australian study showed that children who consume more than 3 soft drinks per day have 2.2 times the likelihood of becoming either overweight or obese compared with those children who consume less or no soft drinks (Armfield, Spencer, Roberts-Thomson & Plastow, 2013).

The socioeconomic status of a person impacts greatly on childhood obesity, with those children who live in the most deprived areas three times more likely to be obese. Sugar-sweetened beverages play a huge role in this as they are much cheaper and 'tastier' when compared with milk.

(Ministry of Health, 2014).

Recommendations

- Educate parents of young children about the risks associated with sugar sweetened beverages and obesity
- Discuss with parents about the benefits of consuming milk and water instead of sugar-sweetened beverages
- Build therapeutic relationships with parents in the low socioeconomic areas
- Ban the sale of sugar-sweetened beverages in all school institutions
- Place a tax of sugar-sweetened beverages to increase the price to discourage purchasing due to low cost
- Introduce the 'Fonterra Milk for Schools' programme into every primary school throughout New Zealand

Conclusion

- Overall there is compelling evidence which supports that the consumption of sugar-sweetened beverages over milk results in a much higher risk of childhood obesity.
- The most important aspect for health care practitioners is to be constantly educating parents about the detrimental health effects that sugar-sweetened beverages have on their children and continue to encourage parents to take the healthy option of giving their children milk or water.

References

Ministry of Health. (2014). Obesity data and stats. Retrieved from http://www.health.govt.nz/nz-health-statistics/health-statistics-and-data-sets/obesity-data-and-stats

Armfield, J. M., Spencer, A. J., Roberts-Thomson, K. F., & Plastow, K. (2013). Water Fluoridation and the Association of Sugar-Sweetened Beverage Consumption and Dental Caries in Australian Children. American Journal of Public Health, 103, 494-500. doi: 10.2105/AJPH.2012.300889

Kavey, R. W. (2010). How sweet is it: Sugar-sweetened beverage consumption, obesity and cardiovascular risk in childhood. Journal of the American Diabetic Association, 110, 1456-1460. doi: 10.1016/j.jada.2010.07.028

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Rationale

With childhood obesity rates increasing significantly in New Zealand I decided to research 'What is the impact of children drinking sugar-sweetened beverages and the contribution to childhood obesity?' As my clinical issue was based around childhood obesity and the consumption of sugar-sweetened beverages I believed that doing a poster would be more beneficial for both other health care workers and parents of young children.

By presenting my information in a poster form in user friendly language it means that this poster could be displayed in areas that other nurses and parents of young children would read it. The poster could be used in areas as reminders for nurses/other health professionals to inform parents about the detrimental effects that sugar-sweetened beverages have on children's health.

Being a visual learner I also thought that this would be the easiest way for both myself and many others alike to understand the information that I found from my literature review.

Search question - PICOT evidence and findings

The question this literature review looks into is '*What is the impact of children drinking sugar sweetened beverages and the contribution to childhood obesity?*'. The PICOT method was used to develop my clinical question and make it more specific. The PICOT stands for the **p**atient/**p**opulation, the **i**ntervention/**e**xposure, **c**omparison, the **o**utcome, and **t**ime (Whitehead, 2013). The following table states my PICOT question:

PICOT category	**Information relating to question**	**Explanation**
Population	In children aged between 2 and 10 years old	Chose this age group, as it is when they are preschool and primary school-aged children and are often vulnerable to advertising, also an age where sugar-sweetened beverages are given out as treats and more likely to be given to them by their parents rather than buying them themselves
Intervention/Exposure	Does drinking more than 200mls of sugar-sweetened beverages a day on average	Chose this amount as 200mLs is often a serving size
Comparison	Compared to drinking less than 200mls of sugar-sweetened beverages a day on average or milk	Chose to compare with drinking less than 200mls of sugar-sweetened beverages or 200mLs of milk, which are seen as the 'healthier choices'
Outcome	Result in a higher risk of obesity in childhood	As childhood obesity is currently rising in New Zealand I chose this as I wanted to see if it was affecting it any way
Time	by the age of 15 years old	Consumption of sugar-sweetened in regard to obesity would be having an effect by this age

Whitehead, D. (2013). Searching and reviewing the research literature (pp35-56). In Z. Schneider & D. Whitehead (Eds). *Nursing and Midwifery Methods and appraisal for evidence-based practice*. (4th edition). Australia; Elesvier.