Preventative approaches to young men and women’s health—a year 12 education and assessment program that works

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Abstract

Young, free and without a health care in the world. That’s the image we remember, if we can, of life when we were in secondary school! Health was a subject, and not really a concern. Diabetes was just something you knew nana had so you bought her diet chocolate for her birthday, and all you knew about grandad’s health was that he did go to the toilet a lot. (Pretty embarrassing really).

As health professionals we know that key risk factors for health conditions occur well before the age of 50. We also know many students who leave school will not access a health professional for a physical assessment for up to 20 years. These factors lead to a large potential for our younger population to develop significant risks for many of the now common chronic diseases.

Well, this is all about to change via an initiative led by Western District Health Service, Hamilton in partnership with the Hamilton Bainbridge College. For the past six years the health of year 12 males and females has been assessed as too their willing parent participants over a 6 week period. Lunchtimes are busy with healthy food alternatives provided for students and their parents undergoing education within the school confines.

Three registered nurses with experience in family planning, youth education, acute and chronic health care including men’s and women’s health provide the education program and its unique delivery format. Included in the program is a full physical assessment of all participants providing information on cholesterol, blood glucose, body fat, waist hip measures and blood pressure. Parents and students are educated on what these values mean and the relationship between health measures and disease processes.

Over six years of data and assessments are available from both parents and students within this program. Unique changes in both attitude, practice and clinical indicators are evident and provide policy makers, health services and the department of education with an insight into the health needs of both the young and not so young within our population.

Involving parents and students has been the key success to this initiative as both identify risk factors and the real potential of the burden of poor health. Students and parents learn about the relationship between health and disease. Anecdotal and clinical evidence supports the comprehension and resultant effects of the program and supports better preventative approaches to health within our community.

Introduction

The health and wellbeing of our children is always a key priority for all parents and teachers across the nation. With best laid plans and interventions the hope for all parents remains to support healthy growth and development leading to bright and successful futures beyond initial education years. Giving students
the best possible start in life through education and life skills sets the basis for any education facility and assists students in preparing for life after school. The topic relating to health education, risk minimisation, and risk identification for many of the lifestyle related diseases is often reserved for those students undertaking health and humanity related subjects. The broader exposure to topics of this nature to the remaining majority of students is left to parents and society to deliver through its many mediums.

The health of our country if often stated to lie in the hands of our next generation. The current diseases and conditions experienced will be managed and supported by many of the students within our current education system. The facts relating to the health of our nation are somewhat discouraging and lifestyle related diseases are the becoming more common within society. The Australian Institute of Health and Welfare (AIHW) provides evidence revealing that `the general health of rural people is, by urban standards, very poor. Rural populations have above average rates of premature mortality through heart disease, cancer and suicide.¹ The Australian Government reports that obesity rates within our nation are now increasing and in particular within our youth between the ages of 15-24 years of age. This is often an area where exposure to alcohol, decreased physical activity, drugs and poor nutrition are often experienced.²

Health information and education relating to diseases such as diabetes, heart disease and cancer in students are limited before now as the health status of students was not seen as problematic. School based programs focusing on health and human development do cover issues relating to disease intervention and risk modification yet self assessment programs are limited.

**Background**

Western District Health Service (WDHS) is the major regional health service providing acute, aged care and community based health care services for the Western District of Victoria. The current board and management have been proactive in the support of initiatives that promote the aims of preventative health care in the community through initiatives such as the Rural Men’s and Women’s Health programs and Sustainable Farm Families. These programs were developed with the theory of education, health assessment and providing supportive opportunities for change.

The conception of the Year 12 parent and student program was developed with the objectives of access, education and assessment as the primary focus to improve health of two generations of the population.

Baimbridge Secondary College a P-12 education facility within Hamilton in the Western Districts of Victoria embraced the idea and vision of promoting health to students before leaving a structured education facility. The delivery of the program was coordinated into the curriculum framework and attendance has grown from initial numbers of 21 students and parents in 2003 to 67 in 2007. Programs are delivered within the school timetable to facilitate attendance and support of parent and guardian members.

The ability to combine the two generations is a powerful process as it promotes increased social connectedness between family members and the dual recognition of health as an asset for both parent and student. Students are able to identify potential risk in their parents and use new skills to promote positive health behaviours or intervention. Parents are also able to use new knowledge and skills to promote health in the home and during the coming years when students are exposed to lifestyle related risk such as inactivity, poor nutrition, smoking and elevated alcohol consumption.
Methodology

Session delivery was structured within the school timetable and most commonly was delivered in a large common room in their lunchbreak. Sessions were also timetabled to avoid exams, term breaks, school sports and other extracurricular activities. Participants were provided with a healthy lunch option prepared in conjunction with the home economics department of the college.

All participants and their parents were invited to participate in a free one on one physical assessment which was non compulsory as a part of the program. This assessment required participants to fast for 10 hours from food and the performance of a capillary sample of blood for fasting blood glucose and cholesterol performed.

Included in the assessment process was the following:

- fasting total cholesterol and blood glucose
- weight and height measurement
- body mass index
- body fat percentage
- blood pressure and pulse
- waist and hip measurement
- pulse and saturation
- blood pressure assessment.

Education sessions took a focus of presenting topics in a short 50 minute timeframe in a setting where a large number of students and parents were joined over five weeks. Session design needed to be factual, informative, entertaining and relevant. Key topics included:

- diabetes
- the state of rural health
- cancer including gender specific
- nutrition
- health disease
- sexual health and drugs.

All sessions bar one were delivered in a group mixed gender session with a specific gender session delivered to gender groups. Topics in these sessions included:

- females—cervical cancer, breast health
- males—prostate cancer and erectile dysfunction.

At the completion of the program parents and students were given an evaluation sheet to complete with feedback opportunity regarding the entire program. This information was then tabulated and is presented back to the college.

Results

Assessment of participants for reporting was focused on both post session evaluation and the physical assessment results. A total of 195 students and 92 parents have taken part in the program since 2003.
Evaluation which included questions related to session delivery, pertinence to participant and if the session changed their view of their own health were asked.

**Statistical health data**

Health assessment data collation has been combined for the 6 years of intervention from 2003-2008. The main referral indicators included cholesterol and blood glucose levels above 5.5 mmols for a fasting test of 10 hours. Elevated blood pressure readings recorded over 140/90 mmHg were also referred for follow-up by relevant allied health or general practitioners. Raised body mass index readings and waist measures were not referred but participants were educated re the readings and offered support of dietitians or community health educators for support if required.

**Cholesterol**

The cholesterol reading for participants attending over the 6 years have shown a significant difference in the readings of that between parents and students. The vast majority of students had readings below 3.5 mmols and only a total of 4 participants out of the 164 (2.4%) of students having a reading above the recommended 5.5 mmols. Of the parents a total of 74 cholesterol readings were measures with a total of 23 (32%) of parents having levels at or above 5.5 mmols.

![Figure 2 Cholesterol reading for students and parents for 6 year period](image)

**Other health indicators**

Other health indicators including blood glucose, blood pressure and waist hip ratios were all noted to show similar trends as noted in the above figure. All students revealed readings within normal limits and a very minor percentage with indicators for risk or intervention. With relation to the parent health indicators the increased risk for disease was evident and up to 25% of parents showed levels for indicators which would require referral.

**Participant general comments**

Provision was made within the assessment and evaluation process for comments relating to session delivery, timing, relevance and overall outcomes. All comments were in the positive and were thoroughly thought through. Some of the common themes relating to the questions are included as followed.
Discussion

The current results highlight two significant findings with relation to the education and the physical assessment process. With regard to the education process and format feedback and evaluation reveals that the design and content is relevant and pertinent to the needs of both students and parents. Topic design, delivery and content prove to support active, relevant and conscious raising learning in both parents and students within the groups.

Health assessment results highlight that over the six years of delivery the majority of health assessment results relating to the student sample are not of great concern. Blood pressure; body mass, cholesterol and glucose readings were in most cases in the acceptable ranges for healthy living. The adult sample was not "old" perse but "mature" They were parents who work, raise children and are not as yet on the radar of many health services or community health plans for disease management. Results indicate an area of significant health risk and where many services should aim education, assessment and intervention to prevent long term negative health outcomes for the population.

Conclusion

The year 12 student and parent health education program reveals positive benefits to both student and parent populations through education and assessments. Results of six years of interventions reveal the health of student populations are within normal limits expected for healthy living. The health of the older parent population reveals an increase in risk for disease development and in some cases current conditions warranting intervention.

Policy implication

The year 12 student and parent health education program provides evidence revealing the health two separate generations of our population. The program highlights that this program provides both education and health services the perfect opportunity to address health information and assessment in the community. The program achieves high retention rates and promotes early intervention for those at risk for lifestyle and genetic related diseases.

The incorporation of this program into the curriculum based framework has the opportunity to promote health in a population group currently under accessed in the population.

This program also provides evidence based health data on the health of two significant populations that health services and government have limited access to.

Presenter

Stuart Wilder is a registered nurse with over 19 years’ experience in the critical care and emergency fields. Stu has worked with rural men running health education programs in rural and remote areas through innovative programs such as the Rural Men’s Health Education and the Sustainable Farm Families programs. Stu works with men with prostate cancer and assists them through a cancer case management role, educating and linking with visiting urologists to assist men and their families touched by prostate cancer. Stu has a Masters of Nursing Science in the area of men's health and nurse practitioner studies. His current role is as principal researcher with the Sustainable Farm Families project, which
extend to over 1600 farming families across Australia researching their health needs and assessing their physical health.

References