Can it ever be too early to introduce workplace wellness programs?

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Abstract

Wellness' programs in today's workplaces are usually initiated to encourage mature employees to adopt healthier lifestyles. In many cases it is too late – the horse has already bolted. Little data is available on the persistence of the modified behaviours or the longitudinal benefits of the programs although there are reports of reduced sick leave, staff turnover and workers' compensation costs. Improved worker morale has been noted. With current life expectancy now exceeding 80 years and the prospect of today's teenagers working for some sixty years, it is critical that 'wellness' concepts be introduced at an early age if we are to thwart current epidemics of obesity, diabetes and other health related issues. We will simply be unable to meet the health costs of an increasingly aging work force. This paper offers some challenging suggestions as to how this much needed intervention could be achieved.

1. Introduction

The question could be asked "Why is wellness important?" One of the reasons is that people are living much longer today. For example, in Germany in 1900 Prince Otto von Bismark decided that the Fatherland would support all its state workers who reached the age of 65 years old. As life expectancy at the time was less than 50 years it did not strain his treasury too much! (Radford 1987).

Boyne in 2006 wrote that in Australia in 1885 the average life expectancy for Australian males was 48.7 years and for females it was 51.5 years. By 1996 the average life expectancy for Australian males was 75.2 years and for Australian females it was 81.1 years. It is predicted that in the first decades of the 21st century the average life expectancy for Australians will be 100 years (Boyne 2006). The reduced mortality in Australia from 1885 until 1960 was considered to be due to improvements in health education, sanitation and medical care (Boyne 2006). Current increases in life expectancy are considered to be due to health promotion activities that include people not smoking cigarettes, people exercising more, improved diet, improved infection control measures, a higher standard of living and advances in pharmacology and in medical technology. All of these factors have contributed to a higher level of wellness in the Australian population.

It is likely that today's young people will be expected to work to age 70. Australian work retirement age is now 67 years while in Britain the age at which people can retire from work to collect a pension is 68 years old (Gittins, 2009). Health and quality of life are very important. It needs to be considered if 20-25 years in a nursing home is an attractive prospect? It also needs to be determined what happens to people who can not afford

nursing home care and to people who do not have a family to care for them when they are not well enough to care for themself. To have a good quality of life wellness is important. What is wellness?

2. Definition of wellness.

The concept of wellness comes from the ancient Greek philosophy of arête (Queensland University of Technology 2007). A Google search identified 67,000 research based publications on wellness programs and 512,000 publications on the definition of wellness. There is no universally accepted definition of wellness (Definition of wellness 2009). Below are six of the definitions of wellness that were found when searching the internet for a definition.

1. "Wellness is a line of food and treats for pets, and a flagship brand of Old Mother Hubbard company. Wellness is sold through independent pet stores and health food retailers in North America." (Wikipedia 2009, 1).

2. "The concept of practicing all things that keep one well. It involves maintaining good nutrition, exercise, stress control, and good personal and familial social relationships." (Health at Oz 2009, 1).

3. "Tea not only quenches thirst, but also acts as a tonic. It stimulates the mind and creates a feeling of wellbeing." (Tea Fountain 2009, 1).

4. "The relationships between health, regular physical activity, and physical fitness as it applies to Chiropractic philosophy." (Miskelly Chiropractic Center 2009, 1).

5 "We define wellness as a satisfactory state of affairs, brought about by the acquisition and development of material and psychological resources, participation and self determination, competence and self-efficacy. Power and control are defined as opportunities afforded by social, community, and family environments to develop these three dimensions of health and wellness" (Prilleltensky, Nelson, & Peirson 2001, 1)

6. "Wellness is a multidimensional state of being describing the existence of positive health in an individual as exemplified by quality of life and a sense of well-being." (Definition of wellness 2009). For this paper definition 6 is appropriate.

While there was no commonly accepted definition of wellness there were some commonly described dimensions of wellness. According to Definition of wellness (2009, 1) the ten most commonly described dimensions are as follows.

- Social Wellness.
- Occupational Wellness.
- Spiritual Wellness.
- Physical Wellness.
- Intellectual Wellness.
- Emotional Wellness.
- Environmental Wellness.
- Financial Wellness.
- Mental Wellness.

- Medical Wellness.

Using the information provided in the publication Definition of wellness (2009) each of these dimensions is further described below.

2.1 Social wellness.

Social wellness includes living in harmony with family, friends and the community. It covers communicating effectively, enjoying being with and having physical contact with people, caring for other people and allowing other people to care for the person. Social wellness is living in harmony with the environment and with other people.

Benefits of having social wellness include that people who have a good social network and support system are able to manage emotional distress through their support network, they have lower cholesterol levels, have higher levels of immunoglobulin (an antibody) and less illness. Socially well people usually have high self esteem and live longer than socially isolated people.

2.2 Occupational wellness

Occupational wellness involves enjoying meaningful work (paid work and unpaid voluntary activities) and enriching life through work so that work is using the person's gifts, talents, abilities and skills. Occupational wellness includes the person doing the work having work that matches their values, physical abilities, mental capabilities; work that they have enough control over and having work that allows the person professional and personal growth. Occupational wellness allows the person to have a balance between their work and leisure time.

Benefits of occupational wellness are that the person enjoys the work that they do, the person works more effectively to make a positive contribution to their employer's business profits (or to make a profit for their own business if self employed), to their community and, depending on the type of work performed, they can make a positive contribution to the world.

2.3 Spiritual wellness

With spiritual wellness the person feels at ease with their spiritual life and sees growing spiritually as a life long process. Benefits of having spiritual wellness include that the person usually is optimistic and understands the purpose of their life. Optimistic people usually have a higher quality of life.

2.4 Physical wellness

Physical wellness is related to a person having enough physical activity to maintain good cardiac and body health, preventing injuries and ill health due to considering safety in activities undertaken, having immunisations, having regular health checks by a medical practitioner and dental checks by a dentist as appropriate. Physical wellness includes having enough sleep each night (or day), eating healthy nutritional food, maintaining a reasonable weight (not over or under weight) and not partaking in substance abuse.

Substance abuse can include smoking cigarettes, consuming too much alcohol and/or taking illegal drugs.

Benefits of having good physical health mean that person has less ill health and has a better quality of life.

2.5 Intellectual wellness

Intellectual wellness relates to how a person uses educational opportunities to expand their knowledge and to improve their skills.

Benefits of having intellectual wellness are that it improves the person's ability to problem solve, to be creative in their work and leisure activities, to be able to analyse, synthesize and see more than one side of an issue, to develop good written and oral communication skills and to have a passion for life long learning. Intellectual wellness enables the person to keep up to date with what is occurring around them and for areas of interest this knowledge can be world wide.

2.6 Emotional wellness

Emotional wellness includes a person having awareness and acceptance of their feelings, managing these feelings and related behaviour, accepting their limitations, developing autonomy and being able to build a satisfying relationship with other people. An emotionally well person has a strong positive self image, high self esteem and a positive attitude to life.

Benefits of having emotional wellness are that the person is able to understand their own feelings and accept these feelings in themself and in others. They are able to express their feelings and manage them. An emotionally well person is able to live and work independently and to seek and appreciate the support of other people when this is required. An emotionally well person is able to deal with challenges and conflict in a constructive way and to take responsibility for their actions.

2.7 Environmental wellness

An environmentally well person has a life style that respects nature and the species that live in the environment. Environmentally well people are aware of the limits of the earth's natural resources and do not pollute the air, water or earth if they can avoid doing this. They recycle objects such as glass, cans and paper, conserve water usage and energy usage where possible to preserve natural resources.

Benefits of being an environmentally well person include that the person maintains a way of life that minimises harm to the environment, maximises their enjoyment of the natural environment, helps to ensure the purity of air, water and living conditions which are essential to having good health.

2.8 Financial wellness

"Financial wellness is an intricate balance of the mental, spiritual and physical aspects of money. Financial wellness is having an understanding of your financial situation and taking care of it in such a way that you are prepared for financial change. Maintaining that balance consists of being comfortable with where your money comes from and where it is going" (Dimensions of Wellness: Financial wellness 2009, 1).

Benefits of being financially well are that the financially well person is able to manage the money that they have to use to purchase present necessities and for the future in a way that enables them to afford the essentials required for daily living. Daily living requirement include having enough nutritious food to eat, having shelter, having human companionship and being able to take financial care of the family.

2.9 Mental wellness.

Mental wellness can be affected positively by having a supportive social network, by having good physical health, by doing enjoyable work, being intellectually well and having spiritual wellness. The benefits of mental wellness include being able to think clearly, have a high self esteem and being optimistic about life.

Mental wellness can be affected negatively by social factors such as traumatic events or by having a low economic status, by biological factors such as illness, genetics, by medications or by changes to the person's central nervous system. These social and biological factors can cause anxiety and depression. Depression can sometimes not be identified because it co exists with physical illness or because the person does not talk to other people about their personal feelings and problems and obtain appropriate help with solving these problems. Not having mental wellness can affect the quality and enjoyment of a person's life. Depressed people often eat less healthily, exercise less, drink excessive alcohol and smoke more cigarettes. Most people who commit suicide suffer from depression.

2.10 Medical wellness

The Medical Wellness Association has defined medical wellness as "the practice of health and medical care relating to wellness outcomes" (Dimensions of Wellness: Medical Wellness 2009, 1). Definition of Wellness (2009, 1) provides a more detailed description of medical wellness by describing medical wellness as "an approach to delivering health care that considers multiple influences on a person's health and consequently multiple modalities for treating and preventing disease as well as promoting optimal well-being."

Medical wellness is related to the work that health care practitioners do. Definition of Wellness (2009, 1) states that medical wellness:

- "Provides a balanced, appropriate application of wellness practices within the clinical setting that are based on evidence-based practices.
- Promotes a cross-disciplinary approach to patient care, based on informed consent and decision support between the practitioner and patient.

- Establishes a foundation for dialogue and collaboration between conventional and complementary practices with the primary goal of promoting optimal health and well-being.
- Promotes the development and application of professional standards for wellness practices across clinical practices."

The benefits of medical wellness are that it provides many different options for health care practitioners to treat and prevent diseases, it informs people about treatment options and how to manage health related issues using evidence based practices and it promotes a cross disciplinary approach to health care where health and allied health professionals work collaboratively with medical practitioners to provide a high standard of health care for their patients.

This part of the paper has covered ten of the dimensions of wellness. The question can now be asked if wellness is the best term to use to promote people having a good quality of life.

3. Is wellness an appropriate term for having a good quality of life?

A problem with the term "wellness" is that there is no common definition of wellness. Definition of wellness (2009) documents that not having a clear definition of wellness makes it difficult to develop a sound body of scientific knowledge for wellness. This can result in misinformation about Wellness and having people who use the term Wellness inappropriately for financial gain.

In 1946 between the 19th and the 22nd of June the World Health Organisation (WHO) held an international health conference in New York in the United States of America. At this conference, in the preamble to the WHO Constitution that was developed, the definition of Health was recorded as "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (World Health Organisation, 2009, 1). Having a definition of health that has been recognised world wide for many years has enabled a sound body of scientific knowledge related to health to be developed.

As the definition of Health has remained constant since 1948 most workplaces define their program as a Health Promotion Program, rather than as a Wellness Program. Many workplace health promotion programs only include physical wellness. The WHO definition of health does cover social wellness, physical wellness and mental wellness. Occupational, spiritual, intellectual, emotional, environmental and medical wellness are not well described in the WHO definition of health but are all important in determining the quality of a person's life. Maybe "health and wellbeing" conveys a clearer message because what we should be looking at is personal health, life quality and life expectancy.

Following are two case studies that report what is currently being done to promote health and wellbeing for school children by a private Australian organisation and by the government Department of Education and Training of Western Australia and two case studies that report what is currently done to promote health and wellbeing for people who

work in the mining industry by a non government organisation and by the government regulatory authority Resources Safety.

4. Wellness education in schools

The first case study describes the work that the KIDS Foundation is currently performing to improve wellness. The KIDS Foundation has looked at developing wellbeing through teaching people about hazard identification, risk assessment and risk control. "The KIDS Foundation current philosophy about safety education is supported by the findings of the United Nations European Commission which passed the Rome Declaration on Mainstreaming Occupational Health and Safety into Education and Training. The main *objective of the Rome Declaration was to implement a strategy that would prepare and sustain people throughout their life from childhood, teens, adult working life and retirement – in other words a 'whole of life' safety education process* that is reinforced within formal educational settings" (Prosser, Gillett, Chakaodza, Young & Colaciello 2008, 1)

In Australia the KIDS Foundation, which is a strategic partner of the Safety Institute of Australia, began by developing the pre-school safety education program *called See More Safety* for children who attend kindergarten or a play group. This program helps to instil hazard identification, risk assessment and risk control skills in pre-school children.

For primary school children KIDS Foundation has *Safety Clubs.* The Safety Clubs are aimed at increasing safety awareness and safe behaviours in students and staff, developing risk intelligence in children and in creating a safety culture in the school community. Safety Club members are the school students, their parents and teachers who all work together to promote safety awareness. Currently over 7,000 primary schools in Australia receive and use resources provided by the KIDS Foundation (KIDS Foundation 2008).

The KIDS Foundation conducted a longitudinal investigation on the effectiveness of the School Safety Clubs in Victorian Primary Schools between 2004-2007. Both quantitative and qualitative methods were used to collect data via student and teacher questionnaires, random teacher interviews and by analysing injury data that was collected using teacher questionnaires. The response rate for this research study was "29% in 2004, 33% in 2005, 28% in 2006 and 36% in 2007" (Prosser, Gillett, Chakaodza, Young & Colaciello 2008, 3).

The results of this research were that 97% of teachers stated that the Safety Club was effective or very effective in reducing preventable injuries at their school. 78% of School Student Safety Representatives wrote that their school had made changes to make the school a safer place to be at. 23% of the schools reported that there were changes in students' behaviour including having less student fights, having less bullying and having less accidents occur at the school. Other behavioural changes were that in schools with a safety club students reminded other students how to play safely, students were keen to take part in activities related to safety and students had a greater awareness of hazards, risks, how to conduct a risk assessment, risk control strategies and safety requirements.

Schools with Safety Clubs made many physical changes to improve safety on the school premises, to include assessing and implementing safety in work processes and at these schools staff rewarded safe play and the safe behaviour of students. Having Safety Club student representatives direct the program was an important catalyst for change as the students had ownership of the program and safety was student, rather than teacher or parent, driven.

The student's parents were involved in the Safety Club program and were encouraged to reinforce safe behaviour and safe activities at home. A limitation of parent involvement was that some of the parents had a non English speaking background so communication with parents who did not speak English was challenging.

The KIDS Foundation is now developing a secondary school students safety education program which may be similar to that in British Columbia secondary schools. In the Surrey School District in British Columbia in Canada all 24 secondary schools in this district have a student workplace safety policy and safety awareness training programs so that students are immersed in workplace safety until they graduate. Occupational health and safety is built into all schools' curriculum from years 8 to 12 as a result of a directive from the provincial education ministry that required all districts to deliver workplace safety education (Schwartz 2009).

For all Western Australian government schools from kindergarten to year 12 the Curriculum Framework includes health and physical education. The desired out comes of health and physical education are that students are provided with education to develop knowledge on the following subjects to promote their health and wellbeing.

- Lifestyle management.
- How to build and accept relationships and appropriate behaviour towards other people. How to cope with break down in relationships, loss and grief.
- Enhancing personal identity which includes building self esteem, recognising strengths and limitations and developing strengths.
- Communication, cooperation and caring for others.
- Decision making.
- Goal setting.
- Leadership.
- Resilience which includes learning how to manage change, learning self control, how to express feelings appropriately, how to recognise and respond to bullying behaviour, abuse and to peer pressure. Identifying and responding appropriately to power and powerlessness in relationships.
- Time management.
- Assertiveness and self control.
- Self-understanding.
- Social skills and the benefits of social support.
- Stress management.
- Balancing social, emotional, physical and mental health.
- Enhancing personal health and the health of others.
- Healthy body awareness and personal care required for a healthy body.

- Personal hygiene and disease prevention. Knowledge of life style diseases and life style choices.
- Nutrition and healthy food choices.
- Physical fitness requirements to maintain a healthy body. Knowledge of the effects of physical fitness on the heart, respiratory system and body organs.
- Daily passive and active physical activities. This includes learning how to play a variety of sports.
- Personal fitness and recreation for life.
- Risk assessment, risk management, safety management and emergency management.
- Adventure games and skills for out door pursuits.
- Safe storage and use of medicines.
- Health effects of smoking, caffeine, alcohol, cannabis and other illegal drugs.
- Safety at home, school, in the workplace and in the community.
- Basic first aid.
- Environmental health which includes making the environment safer and healthier, developing minimal environmental impact skills, ethics, conservation skills, understanding the life cycles of plants and animals and using environmentally sustainable practices. (Department of Education and Training Western Australia 2009).

This curriculum framework aims to develop the following values.

1. A pursuit of knowledge and commitment to achievement of potential.
2. Self acceptance and respect of self.
3. Respect and concern for others and their rights.
4. Social and civic responsibility.
5. Environmental responsibility (Department of Education and Training Western Australia 2009, 2).

This curriculum framework is for children from kindergarten to year 12 at school. It covers the social, physical, intellectual, emotional, environmental and mental wellness concepts.

5. Workplace wellness programs.

In 1994 Contractor Companies who worked in the mining industry formed an association called the Mining and Resource Contractors Safety Training Association (MARCSTA) to provide generic occupational safety and health education for all contractors and other employees who worked in the mining industry in Western Australia and in Tasmania.

In this one day course with dual emphasis on safety and wellbeing, employees are taught about risk management, occupational safety and health management and environmental issues. Aspects of health management in this course include using safe manual handling practices, use of personal protective equipment, prevention of hearing loss, heat stress and hypothermia, workplace drug and alcohol policies, health, fitness and well being, workplace non-smoking policies, the need to have enough good quality sleep and problems that can occur if fatigued at work, eating the right types of food, the need to

have adequate exercise, the need to have regular medical checks particularly if the person has diabetes, occupational asthma or depression. This health education also includes information on protection from mosquito borne viruses, how to prevent and check for skin cancer, environmental factors to consider in relation to health and important information to know in relation to living in remote areas and mining camps. (MARCSTA, 2008).

The provision of this education to employees who work in the mining industry was shown as being effective in improving occupational safety and health knowledge of the participants in an independent research study conducted by Douglas (2007). Other factors that have contributed to the improvement of health and reduction of deaths at work for people employed in the Western Australian mining industry have included the professional organisation, the Chamber of Minerals and Energy, providing training programs, research activities, seminars, conferences, the development of codes of practice and guidelines and the introduction of the Robens philosophy into the Western Australian mining industry (Gilroy 2008). The Robens philosophy was introduced into all Australian occupational safety and health legislation between 1972 and 1991. In Western Australia the Mines Safety and Inspection Act 1994 uses the Robens philosophy. This legislation and the above educational opportunities have helped to reduce the number of fatalities (as shown in the graph below) and to improve health and wellbeing in mining workplaces.

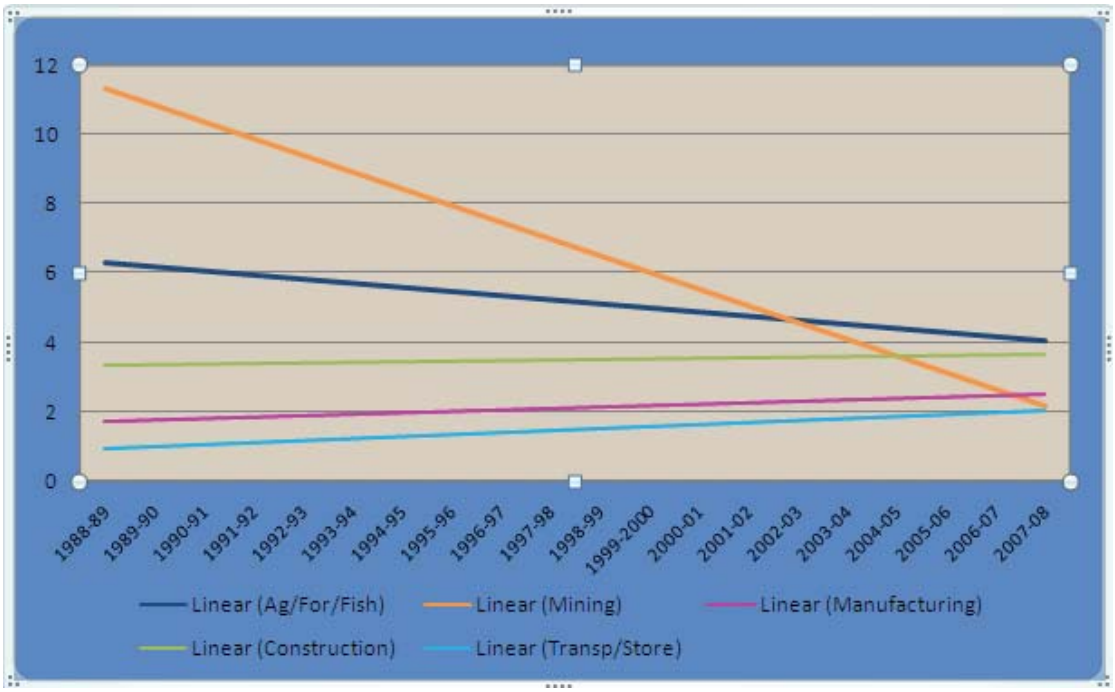

Figure 1: Work Related Fatalities in Western Australia 1988/89 to 2007/08. Linear Trend Lines by Major Industry Sector. (Taylor, 2009, 1)

This graph shows the significant reduction in the incidence of fatalities in the Western Australian mining sector. In Western Australia in 2007-8 there were 27 fatalities, 2 of which were in the mining industry and 25 of which were in other Western Australian

industries (Government of Western Australia Department of Consumer and Employment Protection 2008). Another important health initiative has been the Western Australian Mine Workers Health Surveillance System. This health surveillance examines the work history for mining industry employees in relation to the person's past employment and medical history. It includes a respiratory questionnaire and lung function test to determine the person's respiratory health and an audiometric test to determine the intensity of sound that the person can hear. The medical examination is important because it identifies certain diseases on entry to employment in the mining industry, provides epidemiology data, it monitors respiratory function, general health and hearing. As the medical assessment is performed at 5 yearly intervals if health problems are identified then appropriate medical care or health promotion activities can be commenced. This 5 yearly monitoring could easily also include an assessment of the employee's body mass index to check for obesity, potential for stroke and potential for or actual diabetes.

The two mining industry case studies described use successful strategies for improving health for people who work in the mining industry.

6. When should people learn about health and well being?

In the second wellness education in schools case study the Department of Education and Training Western Australia curriculum frame work covers providing education on social, physical, intellectual, emotional, environmental and mental wellness concepts. According to research by Hiatt (2009) the number of accidents, assaults on students and on teachers and incidents of vandalism by students that are reported to the Western Australian Department of Education and Training have increased.

Table 1. Critical incidents in schools.
Source: WA Department of Education and Training. Cited in Hiatt, 2009, 3.

Type of incident	**2006**	**2007**	**2008**
Accidents	229	288	**297**
Assaults	1081	1103	**1185**
Vandalism	45	87	**104**

Education that commences in kindergarten and continues on to year 12 can provide information on wellness, but for some people more than education is required. May be wellness education should start with wellness concepts being taught in the family home as young children are very much influenced by their family values and examples, particularly in their pre school years.

For wellness to be taught at the family level including before a child starts school, the family needs to have the material and psychological resources to be able teach health and wellbeing. Prilleltensky, Nelson, & Peirson (2001) state that material resources for the parents include having economic security and adequate housing. Help for the homeless (2009) reports that in Western Australia more than 13,000 people are homeless. To help over come this problem the Commonwealth Government and Western Australian

Government are funding a $135 million package to lower homelessness and people having to sleep on the streets in Western Australia by 7% within 4 years. This shows that to even meet the first requirement for wellness for some people government assistance is required. Social circumstances can be an influencing factor on health and wellbeing.

Material resources required for children to have wellness include having "proper nutrition, a toxic free environment, adequate space, comfortable temperature and stimulating toys" (Prilleltensky, Nelson, & Peirson 2001, 145). To help with nutrition Foodbank distributes 2.2 million kilograms of food a year to needy Western Australian families. In addition to this Foodbank has a school breakfast program which provides food for children in 310 Western Australian metropolitan, regional and remote area schools. Foodbank also provides more than 1.5 million breakfasts a year to disadvantaged children. Doug Paling, who has been the chief executive of Food bank for the last 15 years, "said the breakfast program promoted healthy eating habits that would stay with children for life. Children from any background could tuck in to free toast, cereal, baked beans and spaghetti, fruit and yoghurt. 'Up to 16 per cent of children are going to school without having breakfast and in some cases they have not had dinner the night before' he said. 'There was a poignant comment from a school principal saying some of the poor little lost souls don't stand a chance in the school system or, indeed, in life. So amongst everything the children know that someone cares for them'" (Painter 2009, 14). This example shows that community help is sometimes needed for health and wellbeing.

Prilleltensky, Nelson, & Peirson (2001, 145-6) state that "psychological resources for the child include secure attachment, empathy and problem solving abilities. For parents, psychological resources include effective communication and affective marital/partnership bonds." Children need to have enough positive experiences to be able to with stand adversity. Children's positive experiences usually need to begin in the home environment with the people who care for them. From this point of view health and well being education and experiences need to start from when a child is first born, or even before this with parent education. When people begin paid work their social, physical intellectual, emotional and other practices may already be set behaviours. There are people who blame their current health problems and poor quality of life on what happened to them when they were a child. A systematic literature review by Avenell et al (2004) that examined the long term effects and economic consequences of a variety of treatments for obesity found that when the family was involved in the treatment program, rather than just the individual, there was much more of an improvement in intentional weight loss. This showed the importance of family involvement in health and well being programs.

Educating people about health and wellbeing should be a life-long approach. Wellbeing and responsibility for health must become a personal responsibility and this must start at an early age. It must become an integral part of our educative process with children made aware of the importance of diet, exercise and quality sleep (which are all part of physical wellness) to quality of life and longevity linkage. The alternatives include premature death from obesity, diabetes, auto-immune deficiencies and, if surviving, a lengthy unpleasant old age.

One of the most successful health and well being programs was started by Sir Richard Doll. Sir Richard Doll wrote a paper about a lot of small research studies that when combined demonstrated the ill health effects of cigarette smoking. He published this information. Children were then taught in schools about how the poisons in cigarette smoke affects the human body and the resulting ill health effects of smoking. These children educated their parents about the ill health effects of smoking cigarettes. Australia's first law banning smoking was issued in 1912 (Medical News Today, 2007). Following this law workplaces where management was worried about having to pay workers' compensation claims for employees who became ill as a result of being exposed to cigarette smoke at work banned employees and other people smoking on their work premises. There have been subsequent Local Government, State Government and Commonwealth Government laws written and enforced that banned smoking in enclosed spaces and later even banned cigarette smoking in open spaces like beaches, sidewalks and anywhere near children's playgrounds.

The program has been so successful that there is a warning of the ill health effects of smoking cigarette on every cigarette packet sold in Australia. Today 85% of the Australian population do not smoke cigarettes and smoking is considered socially unacceptable by many Australians (Medical News Today, 2007). When the laws banning smoking in open places in Australia were introduced it was anticipated by Assistant Health Minister, Verity Firth, that these laws would save the government $2.5 billion Australian in health care costs over the next 20 years (Medical News Today, 2007. Education on other aspects of health and well being needs to have a similar impact with community and government support being given to health and wellbeing programs.

Many of the successful strategies from this program can be applied to life long health and wellbeing promotion. The first step would be to identify any health or wellbeing problems. Nursing staff can play a role in doing this. Infant health nurses can assess babies and young children for health and wellbeing. They can provide parents with information and support to develop their child's health and wellbeing at antenatal classes and at follow on educational classes. At school the school nurse can assess children's health and wellbeing, provide the children, their teachers and parents with education and support to maintain children's health and wellbeing. In the workplace this role would be undertaken by the occupational health nurse. For adults who are not working at a workplace with an occupational health nurse this assessment can be performed by a nurse at a Medical Centre. In all cases health and wellbeing assessments should be at least every 6 months with follow up education and support as appropriate. The cost of these assessment and follow up actions should be off set by a Medicare rebate for these services as preventing problems before they occur would lower future health care costs.

Heirich and Sieck (2000) conducted a research study with 2000 employees who were recruited for their study through cardiovascular health screening. The results of their research showed that proactive outreach and follow up with counselling was more effective than just having health education classes for promotion of employee health and well being. This demonstrated that more than just assessment and education is required to promote health and wellbeing. A research study by Erfurt, Foote and Heinrich (1991) had similar results.

In 2003 Capital Metropolitan Transport Authority in Austin, Texas introduced wellness programs that included having personalised health assessment and prevention screenings, dietary counselling and healthier food options, a smoking cessation program, wellness coaches, a 24 hour fitness centre, health workshops, health newsletters and cash incentives for achievements for its 1,282 employees. A research study by Davis et al (2009) evaluated the effectiveness of this program and found that due to an improvement in employee health employees' absenteeism had decreased by 25% since this program had commenced. The return on investment was $2.43 for every dollar spent on employee health and wellbeing promotion.

Gebhardt and Crump (1990) conducted a literature review of 71 publications concerning published employee wellness programs. This literature review identified that fitness programs on their own did not lead to a reduction in coronary heart disease, however they did when combined with healthy lifestyle practices. These researchers describe wellness programs in the 1980s as being composed of three levels. Level one programs had screening sessions, health fairs, health posters, flyers, newsletters and health education classes. Health screening programs usually consisted of a lifestyle questionnaire and a series of health assessments that included measuring each person's blood pressure, blood lipids, body mass index, estimated aerobic capacity and general health.

Level two programs had all of the above as well as having fitness centres that trained employees in physical fitness, correct performance of physically demanding work tasks such as manual handling, used behaviour modification techniques, promoted healthy eating habits and taught employees about how to consider physical ergonomic factors to improve their workplace and work processes. Level two programs included having consultations on weight loss, stoping cigarette smoking and teaching stress management strategies.

Level three programs included all that was in level one and two programs but also conduct a workplace needs assessment for their program, had written program objectives, had a goal of creating an environment that motivated and assisted employees in sustaining their healthy life style and behaviours and that encouraged employees to continue healthy behaviours away from the workplace as well as when at work.

Gebhardt and Crump (1990) found that to be effective level 1, 2, 3 programs all needed to be accompanied by counselling. These researchers also evaluated job-related fitness programs that are required for jobs that have high physical demands, such as fire fighters. They reported that the City of Los Angeles required all 1,652 of their fire fighters to participate in 45 minutes of strengthening, flexibility and aerobic conditioning exercises three times a week. A 15 year cross-sectional longitudinal research study of this program demonstrated that this exercise program delayed the decline in work capacity and flexibility with increasing age, especially for workers aged 40 years and older. The program also decreased workers compensation costs by 25% per $100 of pay roll and the number of disabling illnesses and injuries by 16% for these fire fighters.

When evaluating the impact of wellness and fitness programs Gebhardt and Crump (1990) found that there were only about 20 rigorous research studies that demonstrated cost savings to their company. Many of the research studies did show though that

wellness and fitness programs did reduce employee work related injuries, workers' compensation costs, employee medical costs, employee sick leave, absenteeism and employee turn over and that these programs did improve workers' morale and work performance. Fitness and physical wellness programs reduced triglycerides, body weight, skinfold measurements and employees' blood pressure and increased employee aerobic capacity.

The private health insurer, HCF, has invested over $100 million Australian in providing a Members' web based health platform that gives Members personalised support for healthier life style choices (Dearne 2009). HCF's 1.3 million Members can voluntarily participate in this health and wellbeing program. The soft ware for the computer program allows staff to identify health risk factors, suggest appropriate health and wellbeing strategies, suggest ill health prevention strategies, help to influence behaviour change and to provide evidence based medicine. As well as having web based health and wellbeing support, if Members ask for it, they can also have the support from staff by phone. HCF Chief Executive, Terry Smith, said "Our investment will be offset by savings achieved from having a healthier membership" (Dearne 2009, 34). Other health insurers could follow this organisation's example in promoting wellness for their Members to reduce their health care costs.

The National Health and Hospitals Reform Commission has found that "Australia is facing an upsurge in people with chronic lifestyle diseases, such as diabetes and heart disease, which tend to be time-consuming and costly to manage" (Creswell 2009, 13). "With obesity levels expanding over recent years, today 62% of Australian men and 45% of woman are overweight or obese. With these figures comes the medical cost associated with this serious health risk along with $1.5 billion annually in direct obesity health costs." (What are workplace wellness programs, 2008). Indirect costs from a work related perspective include work absenteeism and loss of production. To improve wellness in the Australian population the Federal Government "Proposes creating a national health promotion and prevention agency that would make its mission to keep people healthier for longer" (Creswell 2009, 13). The health promotion would apply to people of all ages and promote life long health and wellbeing in the Australian population.

7. Generations of health promotion programs.

Schirmer (1925) wrote about workplace health education programs that were conducted by employers in the 1920s to improve their employees' health, fitness for work and productivity. Fuchs and Richards (1985) wrote that employee health screening, health education programs that promoted a decrease in infectious diseases and positive general health, employee assistance programs that provided assistance to employees with personal problems such as excessive alcohol consumption and programs that promoted positive employee management were common in the 1950s.

Workplace health promotion became a desired business activity in industry in the 1970s when health promotion was promoted by the public health movement and by World Health Organisation (Playdon 1997). Telfer (1999) reports on four generations of health promotion programs. When health promotion programs began in the United States of

America in the 1970s as a reaction to corporate health costs that were rising by 20-30% per year, health promotion programs usually focused on only one risk factor, such as fitness or weight loss. These programs were usually short term, were low cost to implement and employee participation was usually high and enthusiastic. Many workplace health promotion programs only try to change employees' behaviour. In a workplace this is called fitting the person to the job (Pheasant, 1994). People forget that the work environment, work tasks and management practices have a significant effect on the health of employees. For this reason managers have an important role to play in successful health and employee wellbeing promotion at work as this encourages the use of good workplace management practices. This is called fitting the job to the person (Pheasant, 1994).

The next generation of health promotion programs began with the Safety Adviser conducting an organisation wide needs assessment. Medical screening, personal observation and examination of accident and injury statistics were used to identify high risk employees and workplace activities for health promotion education and behaviour change programs. The third generation programs still focused on making a change to employees' behaviour, but widened health promotion to also make changes to the workplace, work processes, environmental and organisational factors to improve employees' health. Fourth generation health promotion programs looked at making changes, not only in the workplace, but also to away from work behaviour, employees' families' activities, school programs, community health promotion (like being involved in WorkSafe Western Australia's Safety Town program) and even look at meeting national health improvement goals and targets through workplace health promotion programs (Jansz 2004).

The question can be asked, "How could we change the current limited concept of "wellness programs" which, for the most part, are temporary and of limited value, into an active, generalised, rewarding and quality of life activity?" There is a need for workplace health promotion programs to have a fifth generation of health promotion programs that include physical wellness, occupational wellness, social wellness, intellectual wellness, emotional wellness, environmental wellness, financial wellness and mental wellness.

Medical wellness is a specific type of wellness that is included as a subject in medical, nursing and allied health professionals' tertiary education courses. For example, Scaffa, Reitz and Pizzi (2009) state that occupational therapists in their clinical practice are educated about health promotion and prevention theory and practice from a wellness rather than an illness perspective and that this education includes implement wellness interventions across the life span using a client centred approach. Throughout their life people have a responsibility to themselves, to their family, to their children, to their partner and to society to be as well as practicable.

As there is such a wide variety of spiritual beliefs the appropriate place to teach spiritual wellness would be in the home. Something that is often forgotten with current health promotion programs is meeting people's spiritual needs. For example, Dr A'Aidah Abd Majid (1997) considered that one of the reasons that Australian workers become stressed at work, and have lower productivity, is because workplaces do not meet their

employees' spiritual needs and always have a prayer room for staff to take time to pray. Health and well being programs need to also take cultural concerns into account.

8. Life long health and wellbeing.

There are many older people who have good health and enjoy their life. For example, Phyllis Turner left school when she was 12 years old to help care for her brothers and sisters. She then married and raised her own 7 children and 2 stepchildren. When she was 70 years old Phyllis gained top marks in an essay exam at the Adelaide University in South Australia. When she was 90 years old Phyllis completed an Honours Degree in Anthropology at the Australian National University in Canberra ACT. In 2007, at the age of 95 years, Phyllis was awarded her Masters degree by Research in Medical Science from the Adelaide University. "Her academic supervisors, Professors Maciej Henneberg and Colin Groves, praised her lively and fresh intellect. They are now encouraging her to continue studying – to gain a PhD. The South Australian Government named Phyllis South Australia's Adult Learner of the Year for 2007" (Jongen 2008, 5). Phyllis has intellectual wellness.

Buster Martin began working at the market stalls in South London when he was 10 years old and has worked to earn his living ever since. To celebrate his 100th birthday Buster was going to have a beer at his local pub on his way home from work. "But Pimlico Plumbers, the South London company that employs him as a mechanic and valet to look after its fleet of vans, organised a VIP trip to Chelsea's soccer ground, Stamford Bridge, to pick up a team shirt with "Buster 100" on the back" (Happy 100 2006, 30). "His boss, Charlie Mullins, said: "I was surprised at first that someone aged 97 had applied for a job, but he is definitely an asset" (Happy 100 2006, 30). Buster has a good boss, enjoys his work and does not want to retire from his job. Buster has occupational wellness.

Jim McDonald turned 101 in September 2008. Jim built a cattle empire for his family and still works in his business. Jim's family run 1,700,000 head of cattle on 11 stations. Last year Jim's family had a profit of $209 million Australian. This financial year the profit was $272 million (Families, 2009). Jim McDonald has financial wellness. Barrett Nichols, who was born in 1901 in Bath in Maine in America, is still earning a living winning local golf tournaments at age 105 years (Happy 100 2006, 30). Barrett Nichols has social wellness and enjoys his life. No matter what age they are, if people are well they can have a good quality of life.

9. Conclusions

The question asked in the title of this paper is "Can it ever be too early to introduce workplace wellness programs?" The research conducted to write this paper has provided the answer of no. Workplaces wellness assessment and programs should be introduced before the employee commences work, as is done in the MARCSTA program and in the Mine Workers Health Surveillance program. This pre employment screening and education needs to be followed up with workplace based health and wellbeing programs that include counselling.

Wellness should be a life long learning process to help to allow the highest quality of life possible for each person, and to decrease the burden on individuals and the government

of providing health care that would not be needed if the person was well. State and Federal Governments should prioritise the introduction of a school based, Medicare driven, wellness program with a view to improved long term wellness outcomes for future generations with life expectancies approaching or exceeding 100 years. Having good health and wellbeing through out all stages of life makes life enjoyable and allows life to be lived to the fullest, whether the person is 2 years old or 105 years old.

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