A STRATEGY TO IMPROVE SCHOOL BASED HEALTH PROMOTION:
A CASE STUDY IN SMOKING PREVENTION

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I hereby certify that the work embodied in this thesis is the result of original research and has not been submitted for a higher degree to any other University or Institution.

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“What is very clear is that education and health for children are inextricably intertwined. A student who is not healthy, who suffers from an undetected vision or hearing defect, or who is hungry, or who is impaired by drugs or alcohol, is not a student who will profit from the educational process. Likewise, an individual who has not been provided assistance in the shaping of healthy attitudes, beliefs, and habits early in life, will be more likely to suffer the consequences of reduced productivity in later years.”

McGinnis (1981)
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LIST OF ABBREVIATIONS

Abbreviations used throughout this thesis include the following:

ABS  Australian Bureau of Statistics
ACHPER  Australain Council for Health, Physical Activity and Recreation
AEC  Australain Educational Council
AGPS  Australian Government printing service
AIHW  Australain Institute of Health and Wefare
CDC  Centre for Disease Control
CHHSP  Coalfields Health Heartbeat Schools Project
CO  Carbon Monoxide
DCSH  Department of Community Services and Health
DSC  Disadvantaged School Component (of the Equity Unit)
DSE  Department of School Education
HIPS  Health in Primary Schools
HPS  Health promoting school
KLA  Key Learning Area
NCI  National Cancer Institute
NHF  National Heart Foundation
NHMRC  National Health and Medical Research Council
NIH  National Institute of Health
NNESP  National Nutrition Education in Schools Project
PDHPE  Personal Development, Health and Physical Education
PHC  Primary Health Care
RFA  Risk-focussed approach
SCN  Thiocyanate
SWSAHS  South West Sydney Area Health Service
UNICEF  United Nations Children’s Fund
USDHHS  United States Department of Health and Human Services
USEPA  United States Environment Protection Authority
USOTA  United States Office of Technology Assessment
WASH  Western Australia School Health
WHO  World Health Organisation
SYNOPSIS

Background

Schools have enormous potential as a setting for health promotion. Children spend the majority of their day at school, and schools have an existing infrastructure to provide health education in an acceptable manner. Links with parents and caregivers provide schools with the potential to improve the health status of many members of the community. However, time limitations, lack of teacher training and competing agendas, mean that many schools are not providing health promotion programs and supportive environments. The aim of this thesis is to develop a strategy to improve school based health promotion. The strategy is based on a risk-focussed approach (RFA) and the Health Promoting School (HPS) framework. To demonstrate implementation of the proposed model, smoking prevention is used as a case study.

Theoretical Framework

A RFA is one which acknowledges that all members of a target group are not identical, and tailors the health promotion intervention to different risk factors or predictors. In the case of smoking prevention, all children do not possess all of the risk factors for smoking uptake, so the risk-focussed intervention was tailored according to gender and stage of smoking uptake. The use of this approach reduces the amount of time that needs to be spent on health education, thus overcoming one of the major barriers to school based health promotion.

The HPS framework is made up of three main areas: the formal curriculum; school ethos, and; home/school/community partnerships. A health promoting school is one which displays, in everything it says and does, support for and commitment
to, enhancing the total well-being of all the members of the school community. This approach extends health promotion from simply health education which is confined to the classroom, to include healthy policies, supportive environments, positive role models and health promotion links with the community. The HPS framework also reduces situations of hypocrisy such as classroom lessons on nutrition and a school canteen which only sells junk food. The HPS framework was incorporated into the risk-focussed intervention.

Studies

A longitudinal study was conducted to determine the predictors of smoking uptake among grade six children (n=459). Baseline assessment of a range of predictors was carried out using a questionnaire administered under bogus pipeline conditions and follow-up data collection was completed six months later. Smoking status was assessed by a stage-of-change item which assessed stage of smoking uptake. The predictors of uptake that were identified are outlined below.

i) all children were more likely to try smoking if their best friend was experimenting with cigarettes or if they identified that they would like to try smoking. Boys were more likely than girls to try smoking during grade six

ii) girls were more likely to try smoking if they did not believe that smoking was addictive or that smoking had negative health consequences

iii) boys were more likely to smoke if they didn’t think they would get caught

iv) children who had never tried smoking were more likely to try it if their parents smoked or if they indicated intention to smoke

v) children who were experimenting with cigarettes were more likely to progress to regular smoking if they thought that they would not get into trouble if
they were caught smoking and that there was little chance they would get caught

The predictors of cigarette smoking uptake were used to design lessons for a risk-focussed intervention. The risk-focussed intervention also included strategies to engage the school community such as policy examination and promotion, fostering a non-smoking environment, the inclusion of parents and the use of interactive learning techniques.

An instrument to assess HPS status was designed and the content validity established using expert review. This instrument was then used in a cross-sectional survey of 172 primary school principals from the Hunter Region.

A sampling frame was established for a randomised controlled trial in which the randomisation was stratified according to school size and HPS status. Thirty-five Hunter Region primary schools and 1307 students took part in the randomised controlled trial. The randomised controlled trial assessed differences in smoking uptake between four different groups:

1. Normal practice
2. Standard classroom intervention
3. Risk-focussed intervention taught by regular classroom teacher
4. Risk-focussed intervention taught by a specialist health teacher

The results of this randomised controlled trial showed a statistically significant difference in smoking uptake between students from different study groups. Twenty-eight per cent of students in group 1 and 32% of students in group 2 took up smoking. However, only 9% of children in group 3 and 3% of children in group
4 took up smoking \((p<<0.01)\). The odds ratio for taking up smoking in group 1 compared to group 4 was 15.1.

The innovative risk-focussed model was successful in reducing experimentation with cigarettes which is recognised as a notoriously difficult area to produce change. It is recommended that the risk-focussed model be trialed on other health behaviours such as physical activity, nutrition, sun-safe behaviour and injury prevention.