

EFFECTIVENESS OF HEALTH PROMOTING SCHOOL AND ILLICIT DRUG ABUSE, MENTAL HEALTH AND HEALTHY EATING HABITS

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ABSTRACT

The most important platform where children spend maximum time is their school. To have a complete state of health, children should be healthy in all three domains as defined later. They should be free from drug abuse, should be able to enjoy healthy eating habits at school and should have a stress free environment for their mental well being.

This study was a review of reviews and was carried out to determine the effectiveness of health promoting school and illicit drug abuse, mental health and healthy eating habits.

The systematic reviews and meta-analyses were selected from a ten year span (1998-2008) from the Cochrane Library on The Cochrane Collaboration database of systematic reviews. Twelve studies met the inclusion criteria. The review of all these reviews was carried out in accordance with the guidelines provided by Cochrane Collaboration. Two authors independently extracted data and assessed trial quality.

Five reviews focused on promoting mental health, four on preventing substance misuse and three on promoting healthy eating and physical activity. In general, health promoting schools were shown to be effective although some of the studies showed mixed results and decrease in the effectiveness in young children.

INTRODUCTION

Health is defined as the complete state of social, mental and physical wellbeing and not merely the absence of disease and infirmity¹. This applies equally to children and adults. The most important platform where children spend maximum time is their school. To have a complete state of health, children should be healthy in all three domains as defined earlier. They should be free from drug abuse, should be able to enjoy healthy eating habits at school and should have a stress free environment for their mental well being.

Schools have an impact on pupils to adopt a healthy diet as it is established before school age. Since numerous expert committees have concluded that particular diets, namely those high in saturated fatty acids, non milk extrinsic sugars (NMES) and low in polysaturates, fibre and vitamins A, C and E are associated with

conditions such as coronary heart disease, stroke, diabetes, cancers, obesity, dental erosion and dental caries, the frequency and amount of NMES should be reduced in children and the main focus should be based on 5 pieces/portions of fruits/vegetables per day^{2,3}. Consumption of NMES and acidic and carbonated drinks remains high in schools and thus, measures such as healthy eating policies need to be implemented to reduce their intake.

Children undergo various stresses in school including peer pressure, bullying and seniors' negative attitudes. This causes them a lot of mental stress which can in some cases lead to initial use of drugs and finally addiction. Schools offer the most systematic and efficient way of reaching young people, peers, family and social context that are strongly implicated in early drug use. It is therefore important to address these issues for betterment of children's' well being.

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METHODOLOGY

Search Strategy

We searched *The Cochrane Library for Cochrane Reviews* on the Cochrane Collaboration Database of Systematic Reviews. Reviews studying mental health, substance misuse, illicit drug abuse, healthy eating and effectiveness of health promoting school were included. All other studies that were out of the time span and topics were excluded. Studies falling in the 10 year span from 1998-2008 were included. Search terms were: effectiveness, illicit drug abuse, healthy eating, mental health, reviews, and health promoting school.

Selection criteria

Meta-analysis and systematic reviews including case control trials and Randomized controlled trials (RCT).

Data collection and analysis

Two authors independently extracted data and assessed trial quality.

MAIN RESULTS

We identified twelve studies that met the inclusion criteria. Five reviews focused on promoting mental health^{4,5,6,7,8}, four on preventing substance misuse^{9,10,11,12} and three on promoting healthy eating and physical activity^{8,13,14}.

Effectiveness of health promoting school and mental health

Wells et al⁴ identified 17 studies that focused on universal approaches to mental health promotion in schools and evaluated interventions that included all pupils and aimed to promote some aspect of positive mental health or prevent some aspect of mental illness. Evidence of the effectiveness of an intervention was obtained for programmes that adopted a whole school approach and included key elements of the health promoting school approach such as changing the school environment, developing personal skills in the class, involving parents and the wider community, and actively involving the school. This review was of good quality but the narrative synthesis was unable to calculate the average effect of interventions.

Wilson et al⁵ identified 221 studies. The meta-analysis demonstrated the effect of school based intervention programmes on aggressive behaviour. An average reduction of one third of a standard deviation on measures of violence and aggression was seen within the period of 1950-2003. Programmes were more effective in children 5 years old and under and in adolescents 14 year old and over than in other age group. This good quality review showed greater effect in the demonstration programmes evaluated in RCTs.

Scheckner et al⁶ identified 16 studies in the meta-analysis that covered school based programmes for preventing violence in school children and adolescents. It found that effectiveness increased by primary prevention approach, implementation in multiple setting, length of programmes and more qualified staff. However, this meta-analysis was not methodologically sound as the numbers of studies included in the analysis were few.

Mytton et al⁷ included forty four randomized control trials (RCTs) of interventions in his systematic review that was on school based violence prevention programmes. The small number of studies that reported on school or agency responses to aggression showed a moderate benefit that was of borderline significance. Most programmes focused on boys, but greater improvements appeared with mixed sexes. This review was of good quality.

Shepherd et al⁸ synthesized studies of interventions to promote mental health in young people, especially those from socially excluded backgrounds in their systematic review. Fourteen studies were included in this review. The results of these studies and reviews were mixed, with those focusing on primary prevention showed medium to large effects and those focusing on developing self esteem showed modest effects. Knowledge based programmes, however, were not effective. This review is also a good quality review having a wide range of approaches included.

Effectiveness of health promoting school and substance misuse including smoking

Thomas⁹ identified 76 randomized controlled studies in his systematic review that focused on school-based programmes for preventing smoking and measured smoking rates before and after interventions.

Sixteen of these were classified as the most valid. There was limited evidence of the effectiveness of multi-factorial approaches, including those that involved the community. This systematic review was of very good quality.

Tobler¹⁰ in another study identified 207 studies in his meta-analysis which was about school based adolescent drug prevention programmes. Small programmes were nearly twice as effective as larger programmes. This meta-analysis was methodologically sound.

White et al¹¹ reviewed 62 studies in his systematic review. The research question addressed the issue of educating young people about drugs. Eighteen studies showed some evidence of effectiveness, but only two studies provided hard evidence on the effect on drug use.

Faggiano et al¹² identified 61 studies out of which 32 were controlled studies and 29 were randomized, comparing school-based programs aimed at prevention of substance use with the usual curriculum. Effects of the interventions on assertiveness, attitudes towards drugs, and intention to use drugs were not clearly different in any of the trials.

Effectiveness of health promoting school and healthy eating and physical environment

Stone⁽¹³⁾ identified 14 complete controlled studies in his review of synthesis which was about effect of physical activity and interventions in youth. The results were mixed. However, studies that showed the greatest benefits used more extensive interventions. Some studies showed persistent longer term benefits from participation in physical activity.

Shepherd et al⁸ carried out a systematic review of evidence on young people's views and interventions on health, physical activity and healthy eating. Twenty-two studies of interventions that promoted healthy eating and twelve studies of interventions that promoted physical activity were selected. Most interventions were effective with more impact in girls and older pupils. Effective programmes adopted whole school approaches and provided healthy food in canteens. This systematic review was of good quality and used appropriate number of studies.

Grave,¹⁴ selected twenty nine studies in his review which was about school based prevention Programme for eating disorders. Twenty nine studies were identified; nineteen that reported on universal programmes and ten that reported on school based prevention programmes for eating disorders. The results were mixed. Targeted programmes were more effective in changing behaviour.

DISCUSSION

Health promoting school focuses on risk factors like diet, hygiene, decay, periodontal disease, dental trauma, dental erosion and poor oral hygiene, and helps improve the oral health of the children thus improving their quality of life and promoting their education. Schools can provide the children with supportive environments for promoting health along with appropriate policies and practices.

Health promoting school initiative seeks to mobilize and strengthen health promotion, education, activities at local, national, regional and global level. The initiative is to improve the health of children, school personnel, families and other community members through the school. In the UK, the National Healthy Schools Programme focuses on development of healthy schools and has provided criteria to be adopted by all schools to become healthy schools.

After the review of literature, in general, health promoting schools were shown to be effective although some of the studies showed mixed results and decrease in the effectiveness in young children.

By focusing on determinants of health, a health promoting school can achieve optimum well being and good general, oral, mental and physical health of children. Oral and general health can be improved by following the Common Risk factor approach. The strategy includes: efforts to improve health by reducing risks, promoting health and strengthening possibilities to cope with given risk factors, creating supportive environments, reducing the negative effects of certain risk factors and facilitating behaviour changes. School programs can be designed to provide knowledge about the effects of drugs on the body and psychological effects, as a way of building negative attitudes toward drugs; to build individual self-esteem and self-awareness, working on psychological factors that may place

people at risk of use; to teach refusal and social life skills; and to encourage alternative activities to drug use, which instill control abilities.

By focusing on issues of accidents and violence leading to trauma, periodontal diseases and oral hygiene, and consumption of 'unhealthy' foods for the mouth such as carbonated drinks and NMES, schools can play a very important role in promoting oral health in children.

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