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**Interventions to promote young people's physical activity – issues,
implications and recommendations for practice**

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Abstract

There has been increased interest in the development and implementation of physical activity interventions designed to increase young people's physical activity participation in recent years. This is perhaps founded on concerns over youngsters physical activity levels and the possible health consequences. School based interventions are the most common form of intervention but, given that the majority of young people's physical activity occurs outside school, there is now growing recognition of the importance of community based programmes and the involvement of the community at all levels if interventions are to be effective. Based on previous reviews of the findings of formally evaluated interventions, this paper considers the evidence base for the effectiveness of school and community based physical activity interventions. Despite limitations in the literature, it reveals that physical activity interventions with young people can be effective and achieve positive outcomes. The interventions are discussed and a number of issues and observations are highlighted concerning the programme types, target populations, and their design and implementation. Based on this discussion, a number of recommendations for physical activity promotion practice are then made. The paper concludes that, until a stronger evidence base becomes available, health, physical educators and other practitioners should be encouraged to plan, implement and evaluate physical activity programmes for young people and draw on such recommendations to inform their practice.

Introduction

There has been considerable interest by researchers, health professionals, physical educators and the media in young people's physical activity in recent years, perhaps founded on concerns over youngsters physical activity levels and the possible health consequences¹. Indeed, a sizeable proportion of young people have been found to be inactive and to lead sedentary lifestyles^{1,2}. As a consequence, there has been increased interest in the development and implementation of physical activity interventions designed to increase young people's physical activity participation.

The promotion of physical activity within schools and the physical education (PE) curriculum in particular has attracted attention. According to Stone and colleagues³, school based physical activity interventions have an advantage because programmes can become institutionalized into the regular school curriculum, staff development and other infrastructures. It is perhaps not surprising therefore that they are the most common form of intervention for young people⁴. Yet, given that the majority of young people's physical activity occurs outside of school, programmes to complement school based programmes are also needed. Thus, there is now growing recognition of the importance of community based interventions and the involvement of the community at all levels if interventions are to be effective^{5,6}.

This paper considers school and community based physical activity interventions that have been designed to increase young people's physical activity participation. Firstly, the paper reviews the evidence base for the effectiveness of physical activity interventions by reviewing formally evaluated programmes. The interventions are

then discussed and a number of issues and observations which have relevance and implications for the practice of health, physical educators and other practitioners in their efforts to promote physical activity in young people are highlighted. Finally, a number of recommendations for physical activity promotion practice and the planning and implementation of future interventions for young people are offered.

Physical activity interventions

School based interventions

Over the past decade a number of studies have been conducted to evaluate the effectiveness of school based interventions and more recently, reviews^{3,4,7,8,9} have been published which have considered their effectiveness.

Harris & Cale⁷ and Almond & Harris⁸ conducted a review of studies of formally evaluated primary and secondary school health-related PE (HRPE) programmes, predominately from the United States (US), United Kingdom (UK), Canada and Australia. Stone and colleagues³ conducted a review and synthesis of physical activity interventions in youth employing specific study inclusion criteria whereby only studies that had used a quantitative assessment of physical activity and a comparison or control group were included. A total of 14 completed school based studies met these criteria, the majority of which were conducted in the US.

In 2002, a systematic review of the effectiveness of various approaches to increasing physical activity was undertaken in which only studies considered to be of at least fair design or execution were included⁹. Ten studies were reviewed which evaluated the effectiveness of classroom based health education programmes, three

which evaluated classroom based programmes that focused on reducing television watching and video game playing, and 13 which evaluated the effectiveness of modified PE programmes. More recently, and drawing on previous work, a review was conducted which highlighted the trends, characteristics and a number of issues concerning school (and community) based interventions designed to increase young people's physical activity participation⁴. A number of the issues raised later concerning school and community based interventions and initiatives were alluded to in this previous review.

Intervention findings

Studies which have evaluated the effectiveness of classroom based health education programmes have revealed variable results. The review by Kahn et al⁹ revealed that of the ten studies reviewed, two showed increases in physical activity (The Australia School Study¹⁰; The Southwest Cardiovascular (CV) Curriculum Project¹¹), whilst two showed decreases (e.g., The Slice of Life Project¹²). Three studies were also reported to find improvements in knowledge, attitude and self-efficacy about exercise (e.g., The Slice of Life Project; The Southwest CV Curriculum Project).

Three classroom based programmes^{13,14,15} within the review⁹ focused on reducing television watching and video game playing and found a consistent and sizeable decrease in these sedentary behaviours. In one of these studies, time spent in other sedentary behaviours also decreased¹⁵. However, reductions in television viewing and video game playing did not always correspond with increases in physical activity.

In 13 studies which implemented modified PE programmes, consistent increases in time spent in physical activity at school were observed⁹. For example, increases in the amount or percentage of time spent in moderate to vigorous physical activity (MVPA) in PE classes were found in a number of studies (¹⁶; Go for Health^{17,18}; The Child and Adolescent Trial for Cardiovascular Health (CATCH)^{19,20}; The Nebraska School Study²¹; Sports, Play and Active Recreation for Kids (SPARK)^{22,23}). Increases in energy expenditure were also found in two studies (e.g., CATCH; SPARK).

Findings however, were not so consistently encouraging for out of school physical activity. According to the review by Stone et al.,³ five studies reported significant increases in out of school activity (e.g., CATCH; the Oslo Youth Study²⁴; the Stanford Adolescent Heart Health Study²⁵), but three did not (Go for Health; SPARK; The Slice of Life Project).

Lastly, where studies had measured these outcomes, the majority also showed increases in physical fitness (e.g.,^{26,27,28}; The Oslo Youth Study; The Path Program²⁹; SPARK;^{30,31}) knowledge (e.g.,²⁶; Go for Health; The Oslo Youth Study; The Cardiovascular Health in Children Study (CHIC)³²; The Path Program; The Stanford Adolescent Heart Health Programme), attitudes (e.g.,³⁰; Go for Health), and self efficacy (CATCH; Go for Health). Most studies also monitored weight change but the results were inconsistent.

Summary

On the basis of these findings, it would seem that school based PE programmes can achieve a range of positive outcomes^{7,8} and be effective in increasing young people's physical activity and fitness⁴. Following school based interventions, increased activity and fitness levels and improved knowledge and attitudes have been reported. From their review, Kahn and colleagues⁹ concluded that there is strong evidence that school based PE is effective in increasing levels of physical activity and improving physical fitness. However, they also noted that, because of inconsistent results among studies, there is currently insufficient evidence to assess the effectiveness of classroom based health education and health education classes focused on reducing television viewing and video game playing in increasing physical activity⁹. Furthermore, it seems that whilst school based PE programmes appear to be successful in increasing activity during PE, there is less evidence that they are as effective in improving out of school physical activity levels.

Community based interventions

By comparison, reviews^{3,4,5,6,9,33} reveal relatively few community based physical activity interventions with young people. Reviews conducted by Sallis⁵ and Sallis and colleagues³³ reported findings of a limited number of family based intervention studies, but revealed no studies which had evaluated programmes in other community settings. The review conducted by Stone et al.,³ included both school and community based interventions which, as noted earlier, met specific criteria, but identified only three completed community based physical activity studies, and four which were in progress. One review reviewed just two studies⁶. More recently, the systematic review by Kahn and colleagues⁹ included 11 family based intervention

studies which were broadly divided into those that were implemented as part of a school based programme (such as CATCH and SPARK highlighted earlier), and those that were independent studies in the community setting.

Intervention studies and findings

The Family Health Project³⁴ was an intensive nutrition and physical activity programme involving 206 families with pre-adolescents in San Diego and which focused on improving family support for healthful behaviours. The programme was successful in increasing knowledge and changing dietary habits, but generally unsuccessful in increasing physical activity and fitness levels. A similar intensive programme was the Center Based Program for Families³⁵ which involved 94 African American families in education and fitness sessions based at a community centre. It too, however, was found to be ineffective in increasing physical activity and fitness.

As already mentioned, the CATCH programme also included a family component. This consisted of take home materials and Family Fun Night in-person sessions at the schools, which were designed to reinforce the school based intervention. An evaluation of the family component revealed improved knowledge and attitudinal effects, but no behaviour change beyond that achieved through the school based component³⁶.

In addition to programmes for healthy families, it has been noted how several family based programmes have been conducted with low fit or obese children³⁷. For example, one study³⁸ involved a 12 week programme with families of children with low fitness levels in which parents were taught to apply behaviour modification

principles and to reward children's physical activity. All children increased both their activity and fitness levels. Epstein and colleagues³⁹ have likewise published positive findings but for programmes conducted with obese children. Substantial and sustained reductions in percentage overweight were reported³⁹.

Beyond the family, community based interventions include The Class of 1989 and the Minnesota Heart Health Program (or Class of 89)⁴⁰ and Active Winners⁴¹. These studies however, encountered little success. The Class of 89 study, involving over 2,000 students and both school and community intervention components, found decreases in physical activity over time in both the intervention and control group, though the decline was smaller at all ages in the intervention group. Active Winners, which was conducted with over 200 predominantly rural African American primary or elementary aged youngsters, focused on increasing activity and fitness levels outside of school. No significant changes in physical activity or physical fitness were found.

Finally, one study was found which had been conducted in the primary care setting. The initial evaluation of the Patient Centred Assessment and Counselling for Exercise plus Nutrition (PACE+) programme⁴² involved approximately 120 adolescents completing a computerized assessment of their physical activity and nutrition behaviour and receiving counselling from their health care provider and follow-up intervention over a four month period. Results revealed that participants improved their moderate but not vigorous activity participation over time.

Summary

On the basis of such evidence it has been suggested that community based physical activity intervention studies with young people have produced equivocal results⁴, and that the results have provided limited positive findings³. With respect to family based interventions, Sallis⁵ concluded that programmes have been ineffective in increasing children's physical activity and cannot therefore be recommended for broad implementation, whilst others concluded that 'the available studies provide insufficient evidence to assess the effectiveness of family based social support interventions...because of inconsistent results...' (p. 84). Despite this, the evidence for the feasibility of community approaches⁶ and the strong potential for family based interventions to be effective has still been acknowledged⁵.

Issues and observations

In analysing both the school and community based physical activity intervention studies, a number of issues come to light which should be of interest and relevance to health, physical educators and other practitioners involved in planning, developing or implementing physical activity interventions or initiatives with young people.

Programme types

Broadly, the following types of school based interventions were common:

- 1) Augmented PE programmes which involved lengthening the time of existing PE lessons or adding new or additional lessons.
- 2) Non augmented or standard PE programmes which were incorporated into existing PE time. These involved increasing the amount of physical activity

during lessons, for example, by changing the activities taught or modifying the rules of a game.

- 3) Classroom based programmes which were based on theoretical instruction and the provision of information⁴.

Most school based studies appeared to focus on augmented PE programmes involving the provision of additional PE time⁸ which, coupled with the non augmented programmes, have often been found to be successful and certainly more effective than classroom based interventions. However, the difficulties schools face with this former type of intervention due to pressures of curriculum time for PE have been acknowledged^(4,9) and their feasibility and sustainability for more widespread implementation therefore questioned⁴. With respect to the community interventions, the majority were at the family level (see ^{5,9}), though interventions had also been implemented in the wider community.

Also worthy of note, and as highlighted earlier, is that far more school than community based intervention studies have been conducted. An explanation for this may be that, because community interventions can occur at different levels of influence, involve a wide range of individuals and organizations and use a variety of methods, they are difficult to plan, implement and evaluate⁵.

Target populations

The collection of studies is largely from the US and limited for several age groups, with most of the studies having been conducted with upper primary (elementary) aged children³. Just a minority of school based (e.g., Slice of Life; The Stanford

Adolescent Heart Health Program; Project Active Teens⁴³) and community studies (e.g., Class of 89) have been conducted with older youth. It is suggested that the absence of pre-school and early primary years in interventions is partially due to the difficulty in measuring physical activity as well as delivering interventions with these groups³. On the other hand, the predominance of primary school programmes may be due to the increased flexibility generally afforded by the primary curriculum and to their more holistic approach to health education⁷. The target populations for the community based interventions were more varied and included the low fit or obese (e.g.,^{38,39}), high risk populations (e.g., Active Winners), and children from different ethnic groups (e.g., The Center Based Program for Families).

Programme design and implementation

Concerning the design and implementation of the interventions, the majority used random assignment experimental designs (e.g., CATCH; CHIC; The Center Based Program for Families; The Family Health Project; Slice of Life; The Southwest CV Curriculum Project), though some adopted quasi experimental designs (non randomized) (e.g., Active Winners; Class of 1989; Go for Health; SPARK; The Oslo Youth Study). CATCH is the first school based multi centre randomized trial ever conducted. Some researchers consider the use of random assignment and control groups a necessity in intervention research. Others however, consider such experimental examinations an impossibility⁴⁴ and highlight the limitations of adopting a scientifically based experimental approach within complex social settings such as schools (or communities)⁴⁵. For example, problems include the matching of control and experimental groups and of isolating the effects of programmes from control

groups. Most studies however, randomized or assigned schools, families or communities rather than individuals to intervention conditions.

The interventions varied greatly in size and duration. Ninety-six schools and 5,106 students were involved in CATCH whereas just one school and 270 students were involved in The Slice of Life Project. One review⁸ identified a number of school based studies with under 100 students (e.g.,^{46,47,48}). Sample sizes for community based studies ranged from 200 youngsters (e.g., Active Winners) to over 2,000 (e.g., Class of 89). Programmes ranged from just a few weeks or a term (e.g., 11 weeks for The Southwest CV Curriculum Project; 12 weeks for the Family Health Project), to more than a year (e.g., two years for The Nebraska School Study; The Oslo Youth Study; Spark).

Further, follow up has been carried out in only a minority of studies³ and the long term effects of programmes have had little investigation⁴⁹. Follow up periods have been as short as two months for the Stanford Adolescent Heart Project, to 20+ years for the Trois Rivières study^{50,51}. Given the short nature of many of the interventions and lack of longitudinal designs, it is perhaps not surprising that equivocal findings or no significant changes have been reported in some instances⁴. Further, the available evidence from long term evaluations suggests that the long term effects of programmes remain rather weak⁴⁹. Additional longitudinal studies are clearly required.

With the community based studies, further reasons have also been proposed to account for the equivocal findings. These include problems with attrition and

obtaining family participation⁵ and the low intensity of some of the interventions³⁶. In the Center Based Program for Families, participation rates were only 20 per cent and during the maintenance phase of the Family Health Project, attendance was approximately 40 per cent. Increasing participation rates in family programmes would therefore seem to be a critical challenge⁵. Overall, a better understanding about the family as a unit for intervention seems to be needed.

For interventions to be critically evaluated, they require clearly defined and measurable goals that are based on the best available evidence defining valued outcomes. Physical activity interventions can influence physiological outcomes (physical fitness components such as aerobic capacity, muscular strength and endurance, flexibility), clinical outcomes (body composition, blood pressure, blood lipids), behavioural outcomes (physical activity and/or dietary behaviour), cognitive outcomes (knowledge and understanding about physical activity and/or exercise) and affective outcomes (attitudes), and programme effectiveness can be judged by changes in any of these factors. The programmes reviewed here had varied aims and objectives and focused on a broad range of short term outcomes. According to Stone and colleagues³ most school based studies measured knowledge, attitudes, and physical activity behaviour, most identified increasing levels of physical activity as a primary outcome, and a number also included fitness measures (e.g., CATCH; CHIC; The Nebraska School Study; The Oslo Youth Study; SPARK). Similarly, measures of physical activity and fitness were common in community based studies (e.g., Active Winners; The Center Based Program for Families; The Family Health Project) and some also measured knowledge (e.g., The Family Health Project).

The emphasis by many studies on physiological outcomes however, such as the development of physical fitness, is considered note worthy⁴. These studies typically involved measuring pre and post intervention fitness levels via the administration of tests such as VO₂ max tests (e.g., CHIC; The Oslo Youth Study), a one mile run (The Nebraska School Study), or a 9 minute run (CATCH). Yet, controversy concerning fitness testing in young people has been on going in recent decades and a number of issues have been raised, concerns expressed, and limitations identified in using fitness tests with children^{52,53,54,55,56,57,58,59,60,61,62}. Many factors for example, influence fitness test performance (e.g., the environment/test conditions, lifestyle, motivation, skill at taking the test, test practice, and in particular heredity or genetic potential and maturation) which brings into question the validity and reliability of the scores and therefore the results concerning the success or otherwise of the programmes.

A key factor in physical activity programmes which rely on fitness tests as a measure of success is the influence the tests themselves may have on the youngsters. Concern has been expressed that fitness testing may be counterproductive to the promotion of active lifestyles in young people^{60,63,64} in that programmes of testing children can be demeaning, embarrassing and uncomfortable for those children about which there is most concern (e.g., the least active/fit)⁶⁰.

For these reasons, it is argued that from a public health and physical activity promotion perspective, the goal should be to influence physical activity rather than fitness^{57,60,65,66} and that interventions should focus also (or instead) on behavioural, cognitive and affective outcomes⁷. It would certainly seem that there needs to be

consensus amongst researchers, health practitioners and physical educators alike concerning what health-related outcomes are valued most, and what physical activity interventions should be striving to achieve⁴.

A further observation is that the studies provided limited detail about the specific intervention protocols employed⁴. This makes the replication of studies difficult and provides little direction or guidance for the future development of studies, interventions and practice. Similarly, providing more precise descriptions of interventions and measurement procedures so that the effectiveness of different components of the interventions can be identified and replicated has been recommended³. Furthermore, it has been suggested that where the content of school based programmes was outlined, it was not especially innovative or did not include the type of physical activity which would appeal to many young people⁵⁵. For example, programmes included aerobic conditioning techniques or timed runs, and many others were based on theoretical classroom instruction. Although the former activities may positively influence short term fitness gains, they may not be so successful in promoting lifetime physical activity. Similarly, sedentary classroom based delivery of health-related concepts is considered limited in that it tends to focus on information transmission rather than the essential combination of understanding, experiencing, decision making and evaluating⁶⁷.

Programme content must, of course, also be considered in light of the desired outcomes. Thus, if the desired outcome is 'lifelong physical activity,' then the content must reflect this goal and should focus on activities and skills that promote the maintenance of physical activity during youth and adolescence and enhance the

probability of carryover to adulthood³³ (p. S255). This may require a focus on more individually oriented and unstructured activity which is more characteristic of adult physical activity.

Kahn and colleagues⁹ highlight the role of multi site multi component interventions in successfully increasing physical activity behaviours, and an encouraging theme in some studies, and particularly within the school based studies (e.g., CATCH; SPARK), was the use of multi component interventions³ (e.g., intervening in the PE programme, the classroom curriculum, with parents/families, and in out of school physical activity). It is logical to assume that interventions are likely to be most successful if they target the same behaviour across a number of levels⁴. Most studies also addressed multiple behaviours, with diet being coupled most often with physical activity^{3,9}. In addition, theoretical models were commonly used as a basis for the interventions, and a number of studies used a multiple theoretical approach (e.g., CATCH; Class of 89; The Oslo Youth Study; SPARK; The Southwest CV Curriculum Project).

Whilst it was encouraging to see that some studies had adopted multi component interventions, the focus remained largely on targeting the individual and ignored potentially important environmental factors. Recognition of the limitations of an individualistic focus has led to a growing interest in ecological approaches to physical activity promotion in recent years^{37,68}. Yet, despite this, little research has examined the effects of and/or the contribution of environmental factors on the physical activity levels of young people^{69,70}. To date, school based studies have primarily been limited to changes in the curriculum as opposed to whole school

policies or to the environment^{70,71}. One study which may provide scope for others is the Middle School Physical Activity and Nutrition (M-Span) project^{72,73} which was concerned with evaluating the effects of environmental, policy and social marketing interventions on the activity and eating habits of school children. Following a two year intervention, findings revealed the environmental and policy interventions to be effective in increasing physical activity at school amongst the boys but not the girls⁷³.

Similarly, in terms of developing community interventions, it is useful to apply ecological models of health behaviour which recognize the multiple influences on health-related physical activity⁵. In addition, other community settings and approaches may have potential with young people. The review by Kahn et al.,⁹ for example, revealed a range of interventions which have been found to be effective in increasing levels of physical activity in adults (e.g., point-of-decision prompts, social support interventions in community settings, individually adapted health behaviour change programmes), yet which have largely been unexplored with young people. Likewise, the initial positive findings from PACE+⁴², coupled with examples of effective physical activity interventions with adults⁷⁴, suggest that the primary care setting provides scope for promoting physical activity with young people. A recent review of physical activity (and nutrition) interventions for youth in primary care⁷⁴ revealed no published studies of such interventions for young people. In this respect, it appears that generally a limited range of physical activity interventions have been applied to young people. Nonetheless, there are indications that progress is being made and that developments are moving in the right direction.

Summary of physical activity interventions

Despite the issues raised, the preceding review has highlighted how school based PE programmes can provide encouraging results and be effective in increasing young people's physical activity and fitness. Community based programmes however, have enjoyed less success and the findings from these studies are equivocal. But, it is important to note that the research base for physical activity intervention studies is still relatively sparse and is limited for community based studies in particular⁴. The feasibility and potential for community interventions should not therefore yet be discounted or underestimated. Few studies have been conducted outside of the US and, due to a lack of longitudinal research, the long term effects of programmes remain unknown. Studies have also primarily been restricted to targeting the individual rather than the environment and there would appear to be ample scope in developing a broader range of approaches and multi level interventions with young people. Indeed, ecological approaches in particular remain relatively unexplored in young people yet preliminary evidence suggests that they have the potential to influence physical activity levels⁷³.

Recommendations for practice

Whilst it is recognised that most practitioners are unlikely to be involved in the large scale formal and more 'robust' research studies reviewed within this paper, they are likely to be involved in planning and implementing physical activity programmes or initiatives with young people. Thus, the above issues are considered to be relevant and to have key messages and implications for practice. Further, the evidence on the effectiveness of physical activity interventions, and most notably school based interventions, suggests that efforts to plan and implement programmes with young

people can be worthwhile. Equally, although community based studies have to date achieved less attention and relatively limited success, their potential should not be overlooked. On the basis of the evidence from school based intervention studies, it has been concluded that the existing literature is not sufficiently extensive to provide definitive guidelines about which types or aspects of programmes are most effective in promoting activity⁷¹, and the same can be concluded for community based studies and programmes⁴. Despite this, and until such a time, a number of recommendations for practice concerning the future direction of formal and informal physical activity interventions and programmes can be made. These are presented in table 1.

INSERT TABLE 1

Conclusion

The evidence reviewed here has revealed that physical activity interventions with young people can be effective, suggesting that efforts to promote physical activity within schools and the community can be worthwhile. Despite limitations in the existing literature precluding definitive guidelines to be provided, consideration of a number of issues concerning the physical activity interventions clearly has implications for practice and has been used to inform a number of recommendations for the planning and implementation of future programmes. Until a stronger evidence base becomes available, health, physical educators and other practitioners should be encouraged to plan, implement and evaluate physical activity programmes for young people and draw on such recommendations to inform their practice. In particular, a key recommendation and way forward would seem to be the adoption of

ecological approaches to programme design and multi level interventions which recognise the multiple influences on young peoples' physical activity.

Table 1 – Recommendations for school and community based physical activity intervention practice

Recommendations	
Programme type	• School Implement <i>augmented and/or non-augmented or standard PE programmes</i>. These have been shown to be more effective than classroom based programmes and are considered to be more consistent with the physical context of the subject. • Community Until more evidence is available, implement family and/or community programmes.
Target populations	• School and Community Introduce programmes for both <i>younger and older</i> children. Where appropriate, focus programmes on specific <i>target groups</i> (e.g., girls; disaffected; ethnic minorities) and ensure the programme design and content addresses the target group's specific needs, interests and preferences.
Design and implementation	• School and Community Design <i>programme outcomes</i> that are realistic and that focus preferably on behavioural (physical activity levels), cognitive (knowledge and understanding) and affective (attitudes) changes. In school, plan outcomes that meet, complement and reinforce National Curriculum requirements. Adopt an <i>ecological approach</i> to programme design and include <i>multi level interventions</i> which focus on the environment, policy as well as the individual. Where appropriate, also consider employing interventions which target <i>multiple health behaviours</i> (e.g., physical activity alongside diet, relaxation, stress management). Design <i>programme content</i> that is inclusive and reflects the group's activity needs, interests and preferences. Focus on a broad range of activities including non competitive, recreational, individually oriented, unstructured, lifestyle activities. In school, design programme content to meet, complement and reinforce National Curriculum requirements. Avoid overly prescriptive <i>delivery and organisation</i> of programmes which afford young people little choice. Plan programmes that are of sufficient <i>duration</i> (e.g., at least 12 weeks)

	to be effective and have an impact. <i>Evaluate</i> the effectiveness of programmes pre and post the intervention in accordance with the desired behavioural, cognitive and affective outcomes. Where possible, conduct periodic follow up evaluations over the longer term (e.g., annual).

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