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What are the determinants of young people's participation in physical activity? Does activity in childhood continue into adulthood?

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Introduction

There is now strong evidence to support the relationship between physical activity and many aspects of adult health. Physical activity reduces morbidity and mortality from many of the leading causes of ill health, including: coronary heart disease, as well as having positive effects on aspects of health including body fat and weight control, and depression and anxiety [1].

The data on direct health benefits for young people are, however, not so conclusive. This is partly due to methodological problems, but is primarily because the main morbidities which affect adults, and which are caused at least in part by a sedentary lifestyle, have not had long enough to develop [2]. The main exception to this is childhood obesity, which can be considered a health problem in its own right, and which has increased in recent years [3]. It has been suggested that this, together with likely improvements in young

people's psychological health, are sufficient reasons alone to justify efforts to assist all young people in developing regular physical activity habits [4].

It is clear from national surveys that many young people are not meeting current recommended levels of physical activity. The most recent consensus conference on this issue [4] proposed two main recommendations. These were based on existing evidence and expert opinion:

- All young people should participate in physical activity of at least moderate intensity for one hour per day.
- Young people who currently do little activity should participate in physical activity of at least moderate intensity for at least half an hour per day.

The National Diet and Nutrition Survey [5] showed that 39% of young males and 58% of young females did not achieve the recommendation for an hour a day of at least moderate intensity physical activity. The proportions achieving this level declined sharply with age. Other sources indicate that in the last five years or so, physical activity has begun to reduce in many aspects of a young person's life: at school [6 7], on the way to school [8], and as organised sport [9].

This paper will review the evidence on the determinants of young people's participation in physical activity, and whether participation is likely to carry through into adulthood. The overall aim of the paper is to provide a basis for

policy guidance that will help to increase young people's participation in physical activity, and positively influence the likelihood of future adult participation in physical activity.

Methods of review

There have been a number of reviews on both the determinants of physical activity among children [10-16] and the 'tracking' of physical activity from youth into adulthood [17]. We base most of our conclusions on these reviews. In addition, searches were carried out using MEDLINE and via manual searches of known papers and their references. Search terms included: reviews, physical activity, young people, children, determinants, and tracking.

Correlates of physical activity in young people

A number of papers have reviewed the determinants or correlates of physical activity among children [10-16]. The term 'correlates' is generally preferred, because 'determinants' implies that causality can be inferred [16], whereas most studies report only observed associations between factors. Reviews have ranged in the methodologies used, but have in the main tended to rely on narrative evaluations of the literature, and some have restricted the age of the participants studied or the range of variables included. The exceptions are the studies by Taylor, Baranowski and Sallis [13] and Sallis et al. [16], which were systematic in nature. The latter of these two papers [16] was a landmark

study in this field as it reviewed all published studies of correlates of young people's participation in physical activity; included the entire range of potential correlates; studied young people aged 3-18 years; used a semi-quantitative methodology; and analysed both younger children (3-12yrs) and adolescents (13-18yrs). As this study brings the entire field up to date, it will be used as the basis for this section of the paper.

The literature on correlates is drawn largely from the US (three-quarters of papers), and covers both boys and girls. There is some research on racial or ethnic differences in determinants, but this is among the US populations so caution needs to be applied when considering implications for the UK context [18].

A number of factors have been studied which have the potential to be related to physical activity levels in young people [16]. These include demographic and biological variables (such as age and sex), psychological variables (such as intention to be active), behavioural variables (such as diet), social variables (such as parental physical activity) and environmental variables (such as time spent outdoors). We have adopted the categories and drawn on the evidence provided by Sallis et al. [16]. Additional comment will be provided to allow application to the UK context where appropriate. One note of caution is that Sallis et al considered a variable to be associated with PA if such a link was statistically significant. This could include small effect sizes for large samples and exclude moderate or large effects for small samples. Also it should be

noted that Sallis et al included any variable that had been the subject of at least three studies, and reported a *consistent association* where the majority of studies supported the expected association. Therefore in some cases conclusions are drawn based on only two positive studies. Where fewer than half of the studies reported a consistent association, the variable is reported as *inconsistently related*. Where factors were studied but no association was found with physical activity levels, the factor is reported as *not related*.

Summary of correlates

Table 1

DEMOGRAPHIC AND BIOLOGICAL CORRELATES (identified by Sallis et al. [16]).

Consistently associated with physical activity among children:

- Gender. Boys were more active than girls (25/31 studies)
- Parental weight. Overweight parents tend to have more active children (3/5 studies).

Consistently associated with physical activity for adolescents:

- Gender. Boys were more active than girls (27/28 studies)
- Age (negative correlation). Older adolescents were less likely to be active (19/27 studies).
- Ethnicity. White adolescents were more active than those from minority ethnic communities (10/14 studies).

One of the strongest findings is that boys are more active than girls. This relationship begins at a young age, continues throughout adolescence, and is observed in many cross sectional studies and longitudinal studies [5 9 19]. Age is consistently related to physical activity among adolescents only, supporting observations from cross sectional studies that young children are habitually active, but that participation tends to decrease around adolescence

5. Body weight and adiposity were frequently studied but were not found to be consistently related to physical activity. The finding that overweight adults tend to have more active children was surprising, but was supported by the majority of 3 out of 5 studies.

Inconsistent findings: Body weight and adiposity were frequently studied but there were inconsistent findings of associations with physical activity for both children and adolescents. Studies looking into age as a correlate within the 3-12 year age range also showed inconsistent findings.

Not related: Socio-economic status was not related to PA for both children and adolescents.

Table 2

PSYCHOLOGICAL CORRELATES (identified by Sallis et al. [16]).

Consistently associated with physical activity among children:

- Perceived barriers to physical activity (negative correlation, 3/3 studies).
- Intention to be physically active (3/5 studies).
- Preference for physical activity. (3/5 studies).

Consistently associated with physical activity among adolescents:

- Achievement orientation (5/6 studies)
- Perceived competence (2/3 studies)
- Intention to be physically active (6/8 studies)
- Depression (inverse association, 3/4 studies)

Perceived barriers to physical activity was the most consistently associated variable for children, but there were inconsistent findings among studies of adolescents. Intention to be physically active was seen as important for both age groups. Perhaps most surprising in this review was that self efficacy (belief in your own ability to be able to do something) was found to be inconsistently related to physical activity, and self esteem was found to have no relationship. The latter finding may be due to inappropriate measurement

or lack of assessment of domains of self esteem most likely to be associated with physical activity.

Inconsistent findings: Self-efficacy, perceived competence, and attitudes to physical activity were often studied but any associations with physical activity for children were inconsistent across studies. Attitudes to physical activity, barriers, self-efficacy, body image, attitudes, knowledge and enjoyment of physical activity were often studied but had inconsistent associations with physical activity for adolescents

Not related: Body image, self-esteem, perceived benefits, attitudes to sweating and after-school activity were often studied but had no association with physical activity for children. **'**Talks loudly', external locus of control, self-esteem, self-motivation, enjoys exercise, and perceived stress were often studied but had no association with physical activity among adolescents.

Table 3

BEHAVIOURAL CORRELATES (identified by Sallis et al. [16]).

Consistently associated with physical activity among children:

- Healthy diet (3/3 studies).
- Previous physical activity (5/6 studies).

Consistently associated with physical activity among adolescents:

- Sensation seeking (3/3 studies).
- Previous physical activity (11/12 studies).
- Participation in community sports (7/7 studies).
- Sedentary behaviour after school and weekends. (Inverse association with physical activity, 3/3 studies)

Among the behavioural variables, healthy diet was found to be related to physical activity in children, but not in adolescents. Interestingly, previous physical activity was a frequent correlate for both age groups, implying that there is evidence for a 'tracking' effect throughout childhood. This is considered in more detail later. Sensation seeking and participation in community sports were also correlated with physical activity for adolescents, suggesting an effect for involvement based on perceived competence.

It is often assumed that large amounts of time spent in sedentary behaviour would be negatively correlated with overall physical activity but this is not supported by the majority of studies. This implies that young people may be able to spend a great deal of time being sedentary but may still be able to take part in adequate levels of physical activity. The exception is sedentary behaviour specifically after school and weekends, which was found to be negatively associated with physical activity in the majority of studies of adolescents.

Inconsistent findings: Time spent in sedentary pursuits was the most frequently studied behaviour but studies did not consistently report an association with physical activity among children. Cigarette smoking was studied among adolescents but findings were inconsistent.

Not related: Alcohol use, healthy diet, and time spent in sedentary activity were found to be unrelated to physical activity in adolescents. Smoking, alcohol use and calorie intake were unrelated to children's physical activity.

Table 4

SOCIAL CORRELATES (identified by Sallis et al. [16]).

Consistently associated with physical activity among children:

- None

Consistently associated with physical activity among adolescents:

- parental support (2/3 studies)
- direct parental help (3/4 studies)
- support from 'significant others' (4/4 studies)
- sibling physical activity (4/4 studies)

It is often assumed that parents have a large degree of influence on children's physical activity levels, but this was not found for children. Only 38% of the 29 studies that had investigated parents' physical activity found it to be correlated with children's physical activity. There were no variables with consistent associations for children. Among adolescents, however, concepts including support and help were important. Such findings need to be seen alongside environmental and socio-economic constraints, such as parents driving children to school because of concern for their safety or unfavourable environmental conditions.

Inconsistent findings: Parental physical activity was the most frequently studied behaviour but studies did not find a consistent association with physical activity in children. This was also found with parental participation in children's physical activity.

Perceived support from peers, subjective norms and perceived attitudes of significant others were inconsistently related to physical activity in adolescents.

Not related: Parental physical activity, peer modelling and teacher or coach modelling showed no association with physical activity in adolescents.

Table 5

ENVIRONMENTAL CORRELATES (identified by Sallis et al. [16]).

Consistently associated with physical activity among children:

? Access to facilities and programmes (3/3 studies)

? time spent outdoors (3/3 studies)

Consistently associated with physical activity among adolescents:

? Opportunities to exercise (2/3 studies)

Access to facilities and programmes and time spent outdoors were found to be important for children's physical activity, and overall opportunities to exercise important for adolescents, supporting the need for environmental interventions [20].

Inconsistent findings: Season and rural/urban location were found to be inconsistently related to children's physical activity.

Not related: Neighbourhood safety and parents providing transport to physical activity opportunities were unrelated to children's physical activity level. The influence of the sports media, and having equipment available

were not related to adolescent physical activity, though there are relatively few studies in this area.

Conclusions on correlates for physical activity

A number of factors have been shown to be related to levels of physical activity among children and adolescents. Some of these are not modifiable (such as gender) but give indications for the targeting of physical activity interventions, and indicate in particular the importance of targeting girls and adolescents. Factors which have been shown to be consistently related to physical activity participation should be emphasised and developed within policies and programmes. These include psychological, behavioural, social and environmental factors. A number of implications for public policy are given at the end of this paper.

One point of interest arising from this review is whether we should be promoting physically active behaviour, or a decrease in sedentary behaviour. Although many people assume that there is a strong relationship between time spent in sedentary pursuits (notably TV and video game watching) and overall physical activity level [21], this is generally not supported in the literature. This may be due to methodological problems, but is more likely to be due to the fact that it is quite possible for young people to achieve recommended levels of physical activity while still spending a large amount of the day inactive in front of a screen [14]. Whether this implies that targeting a reduction in sedentary behaviour may be more effective than promoting active behaviour remains unclear. Indeed, sedentary behaviour may be associated

with increasing levels of obesity, making this an important area for future research. In addition, there is some evidence that sedentary behaviour may track better than physical activity, particularly for boys [22].

TRACKING OF PHYSICAL ACTIVITY FROM YOUTH TO ADULTHOOD

Common sense suggests that you are more likely to be an active adult if you were active in childhood or adolescence. The well-cited Surgeon General's Report in the USA [1] states that childhood and adolescence are 'pivotal times' for adults as well as youth. The report subscribes to the view that maintaining physical activity habits in youth helps prevents sedentary behaviour in adults. Similarly, the British Heart Foundation [21] says that "physically active children are more likely to be active adults". The National Heart Forum [23] has even published quantified estimates of the strength of the tracking effect, reporting the claim that 'active children are 10 times more likely than inactive children to be active adults'.

Although this assumption is reasonable, evidence to substantiate it is mixed. Many factors in the transition to adult life are likely to affect the levels and patterns of physical activity and changes in the adult life cycle itself will affect the extent that adults are active. Indeed, some have claimed that our understanding of the stability of physical activity during childhood, and from childhood into adulthood, is poor [24], while others propose that the most important research priority in the area of youth physical activity is to "study the effects of childhood physical activity and its determinants as predictors of adult physical activity" [12] (p. S254). It is perhaps even worth asking why we should expect physical activity to track through such an unstable period as adolescence when it is found to be a most unstable behaviour even among adults.

Conclusions from Reviews of Physical Activity Tracking

Powell and Dysinger [25] reviewed six studies that investigated the link between childhood participation in organised sport and physical education and adult physical activity. The most convincing support came from the Harvard Alumni Study. However, this involved predicting adult activity levels from sports participation at college age, a time when activity levels are likely to be more stable. In short, this was not a test of tracking from youth to adulthood but of tracking during adulthood. Powell and Dysinger identified several methodological weaknesses prevalent in the studies they reviewed, hence they concluded that no firm data were available to support the view that childhood activity leads to a more active adulthood.

The most comprehensive review on physical activity tracking was conducted by Malina [17]. He concluded that the magnitude of tracking during adolescence and into adulthood is 'low to moderate'. In other words, there is not a strong likelihood that active young people will become active adults. Riddoch [2], drawing on similar studies to Malina (1996), arrived at the same conclusion and highlighted that the correlations for tracking are particularly weak when self-report measures are used. For example, Telama, Yang, Laasko and Viikari [26], reporting data from the 'Cardiovascular Risk in Young Finns' longitudinal study, showed correlations between measures of physical activity for 9, 12 and 15 year olds to be between .18 and .31 for 9-year follow-up, and -.01 to .27 for 12-year follow-up. Stability was higher for 18 year olds after 9 years (.41-.47) but again were very low after 12 years (.21-.26). The

greatest stability from this study appears to be among those who took part in more intense sports club training. Telama, Leskinen and Yang [27] report 3-year follow-up correlations as high as .78 for 18-year old boys, falling to .27 for 18 year-old girls at 6-year follow-up.

One of the few studies using more 'objective' measures of activity in tracking was reported by Pate, Baranowski, Dowda and Trost [28]. Using heart rate measures, they reported correlations that were quite high (r = .57-.66). However, this study investigated 3-4 year olds over a 3-year period. This is a time when relatively little change in environmental, social and psychological factors is expected. Stability of behaviour, therefore, is likely.

Since Riddoch's (1998) review, Pate et al. [29] have reported tracking data for rural, predominantly African-American 10 year olds over 3 years using self-report measures. Stability was low-to-moderate for vigorous physical activity (r = 0.36), moderate-to-vigorous physical activity (0.24), estimated after-school energy expenditure (0.41), and TV watching (0.41). This again raises the important issue of whether inactivity tracks better than activity. Twisk [30] suggests that the data are mixed on the tracking of sedentary behaviour and Malina [17] says that inactivity has not been studied often enough. This area requires further study.

Other Markers of Tracking

The conclusions so far have been drawn mainly from longitudinal studies that have calculated correlation coefficients across time. These have shown that tracking is generally low. Other studies have addressed the issue of tracking either without longitudinal data or have, within a longitudinal design, assessed likely determinants of the stability of physical activity participation.

Evidence from the Allied Dunbar National Fitness Survey (ADNFS) in England [31] provides some support, at least indirectly, that early participation in physical activity is associated with a greater likelihood of involvement later in life. Through interview, participants in the survey were requested to recall the moderate-to-vigorous physical activity they took part in at 16, 24 and 34 years of age. It was concluded that current participation in physical activity in later adult years was strongly associated with participation at an earlier age. For example, 25% of those stating that they were very active between the ages of 14 and 19 years were active currently, whereas only 2% currently active were inactive in the past during those teenage years. This was the basis for the claim made by the Department of Health that 'active children are 10 times more likely than inactive children to be active adults' (NHF 1999). In addition, about 30% of the adults in the survey remained in the same activity category across the three time periods studied. However, given that the earliest age of recall was 16 years, stability would be expected to be higher than, say, from early adolescence. The reliability of people's assessment of activity levels

carried out some 10-20 years previously must also cast doubt on the validity of this study's conclusions on tracking.

Longitudinal data from Sweden supports the view that activity in childhood is a predictor of activity in adulthood given the right circumstances. Engstrom [32] followed 2000 Swedish youths from 15 to 30 years of age. The study allows for a wider consideration of tracking because potentially important determinants of the stability of activity were assessed. However, the liberal definition of 'activity' as weekly involvement in activity of the intensity of jogging was used and this weakens the study. To test for tracking effects from childhood to adulthood, Engstrom used three conditions as indicators of early (aged 15 years) activity involvement: at least 4 hours per week of sports or physical activities at age 15 years; being a member of a sports club at 15 years of age; having a high grade in physical education in the school year 8. An index of 'psychological readiness' at the age of 30 was calculated and results showed a clear relationship between the number of conditions fulfilled for activity involvement at 15 years of age and high psychological readiness at aged 30. For example, for women fulfilling all three criteria at 15 years, 52% had a high psychological readiness at 30 years, whereas for those not fulfilling any of the criteria, only 17% had high readiness.

These data are supported by a relationship between psychological readiness at age 30 years and actual involvement in physical activity for both men and women. Engstrom (1991) also analysed environmental circumstances and involvement in physical activity. Again, there was a clear relationship

between the number of environmental conditions fulfilled at the age of 30 years, and current activity involvement. For example for men having a lack of environmental support, only 16% were currently active, whereas for men with a supportive environment, 80% were active. This begs the question whether it is the environmental support or the psychological readiness that predicts activity since both correlated highly with physical activity. Engstrom (1991) found that those with a positive environment, but low readiness, were more active than those with high readiness but a negative environment, suggesting a more dominant role for environmental circumstances.

Engstrom (1991) provides an interesting perspective on the issue of physical activity tracking, supporting the view that "early experience with physical activity during childhood and adolescence ... is of importance for the practice of keep-fit activities in adulthood" (Engstrom, 1991, pp. 480-481). The important point to stress here is that the nature of the physical activity experience has been assessed, rather than physical activity per se, and it is the quality of experience that predicts future involvement. However, the criterion measure of activity was weak.

Similar to Engstrom (1991), but using a retrospective design, Taylor and colleagues attempted to identify different predictors of adult men's physical activity from measures recalled from childhood and adolescence [33]. Correlations between recalled childhood experiences in physical activity (e.g., enjoyment of activity, being encouraged to exercise) and current weekly energy expenditure in exercise were all very low (range -0.20 – 0.17). When

controlling for current fitness and sum of skinfolds, adult energy expenditure in exercise was predicted negatively by the frequency of being forced to exercise in the preteen years. This supports Engstrom's findings that if tracking does exist it is likely due to the quality of physical activity experiences in youth rather than involvement per se.

Finally, where evidence for tracking has been presented, it is slightly stronger for sports activities, again suggesting it is important to look at the nature of the activity. Evidence from the Amsterdam Longitudinal Growth and Health Study shows that while organised sport activities contribute only small amounts to total weekly activity above an intensity of 4 METs (a MET being one 'metabolic equivalent', equal to the energy expenditure of sitting quietly), they become relatively more from the early 20s as other activities are dropped [19]. Early physical development usually offers an advantage in children's sports and such early success may be predictive of later involvement. For example, Taylor et al. [33] found a small trend for teacher ratings of sport ability to be associated with adult activity involvement. Similarly, Telama, Laasko and Yang [34] found that the best predictors of adult activity 9 years after initial assessment in childhood were school grade for physical education and participation in organised sport.

Confounding Factors

The discussion so far has suggested that the quality of physical activity experiences might be more important than involvement itself. This leads one

into the study of socialisation experiences, which space does not permit here. One issue requiring a mention, however, is that tracking of activity from childhood into adulthood is confounded by changes that might occur in childhood and in adulthood. For example, Caspersen, Pereira and Curran [35] show that for American adolescents, the greatest increase in physical inactivity and the greatest decline in regular vigorous activity is between 15 and 18 years for both boys and girls. For regular "sustained light-to-moderate" activity, the greatest decline for girls is between 12-15 years but for boys is 15-18 years. Moreover, Mihalik and colleagues [36] have shown that different activities 'expand' and 'contract' at different stages of the adult lifespan. These findings make it highly unlikely that activity at two life stages will be strongly associated.

Conclusions on Tracking

Evidence from reviews and primary studies can be summarised as follows:

- Studies testing the statistical relationship between physical activity in adulthood and activity in childhood or adolescence show a low-to-moderate level of association, meaning that it is not highly probable that active children will become active adolescents or active adults.
- Studies show slightly stronger effects for the nature of early life experiences in physical activity as precursors of adult physical activity, but still these effects appear small.
- The small effects identified may be real or the result of other factors. For example, it is quite possible that a third variable, say motor competence or

early maturation, is the key influence with children experiencing early success less likely to quit later on.

- Research into tracking must account for the quality of childhood experiences in physical activity as well as the changes in activity levels during childhood, adolescence and adulthood.

POLICY IMPLICATIONS

There are a number of implications for public policy that arise from an exploration of these correlates for physical activity, and the tracking literature. These can best be seen in terms of a number of principles that might be used in planning young people's physical activity programmes.

Table 6. Policy implications: priorities for promoting physical activity among young people

- *Target girls*. Most studies show that girls are less active than boys. Girls need to be offered activities that are appropriate for their age, and that enable participation both in and beyond school.

- *Prioritise interventions aimed at older adolescents.* Physical activity declines from around 12 years in most studies. If activities can be designed and delivered in a way that they that appeal to adolescents, it may increase the likelihood that activity is continued into adulthood. Youth clubs and community activities may offer the greatest potential for this age group.

- *Promote different types of activity for different age groups.* Older children are more likely to want physical activity that develops factors like achievement, competence and sensation seeking - implying the need for more competitive sports and activities. Yo unger children are more likely to play spontaneously so need space and opportunities to do so.

- *Make the environment safe, so children can be out of doors whenever possible.* Time spent outdoors is a strong correlate of physical activity for young children. Parks, open spaces, playgrounds and school playing fields need to be made more available and their use promoted. Parents should be encouraged to let children out of doors as much as possible as this increases the likelihood of them being physically active.

- *Enhance the provision of community sports and physical activity programmes and facilities.* Studies show that if programmes and facilities are provided, physical activity participation will rise. Activities such as after school clubs, sports clubs, and facilities for informal recreation (such as playgrounds, skate parks or basketball hoops) will be used if they respond to young people's needs.

- *Prioritise after-school and weekend activity* especially for older adolescents. These are key times for young people to be physically inactive, and allow for innovative interventions beyond the PE and school curriculum. The journey home from school is important here as it offers good opportunities to promote walking or cycling.

- *Encourage family activity.* Parental support and direct help, though not parental activity level, and sibling activity is related to physical activity levels of young people. So while parents should be physically active for

their own health, they should not expect their kids to follow their own example without direct help (such as encouragement to join a club, or practical help such as transportation).

RESEARCH PRIORITIES

This review has shown that there are a number of priorities for future research, both in terms of investigations of the factors shown to be inconsistently related to physical activity levels, and further studies investigating the issue of tracking.

Table 7. Key research priorities

- Longitudinal studies investigating the tracking of physical activity from childhood to adulthood.
- The long term effect of programmes designed explicitly around the factors known to correlate with physical activity levels.
- Correlational studies of the factors found to provide inconsistent associations, especially psychological factors such as self-efficacy, knowledge and attitudes; parental physical activity.
- The role of sedentary behaviour: is it more effective to encourage physical activity or to discourage sedentary behaviour?
- Investigations into a number of broader social and environmental factors that are increasingly seen to be influencing young people's participation in physical activity.
- Data from minority ethnic populations.

CONCLUSIONS

In this review we have presented the evidence of the determinants or correlates of young people's physical activity participation, and have demonstrated that current evidence shows that physical activity does not track well from youth into adulthood. This latter finding may seem to question the commonly held view that physical activity interventions should be designed to 'catch 'em young'. It could be argued that if physical activity does not have a strong impact on young people's current health, and if we are unlikely to be successful in influencing future adult participation in physical activity, then maybe we should turn our attention away from young people as a priority target group.

This, however, ignores the evidence regarding the possible influence of the quality and nature of the childhood physical activity experience, which supports efforts to design interventions which aim to maximise the possibility, however small, that physical activity in youth may be continued into adulthood. In addition, there are a number of other compelling reasons to promote quality physical activity among young people, including its influence on psychological well being, childhood obesity, and social and moral development.

We have also presented a number of principles for promoting physical activity among young people that are based on the best available evidence of the factors that correlate with young people's current participation. Following

these principles would be likely to improve current participation, but further research is needed to see whether following these principles could help to maximise the likelihood of active young people growing into active adults. .

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