

# The relationship between adolescent sport participation and lifelong participation in physical activity in Norway

## A Critical Analysis

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### Abstract

In this paper, the relationship between adolescent sport participation and lifelong participation in physical activity (LLP) is scrutinized, in order to explain why people are active later in life. Literature treating the relationship between sport participation during adolescence was compared to literature into characteristics of Norwegian adolescent sport. Organized and competitive sport does not facilitate lifelong continuation in physical activity, due to its characteristics of sport: adolescents often drop out from sport, adolescents specializes in one sport instead of keeping or developing a broad repertoire for physical activity, and adolescents do not feel autonomous and free in a sport setting as it is adult controlled. Assisted by Bourdieu's theory of field and habitus, the analysis indicates that habitus (including characteristics of social class) better explains LLP than does adolescent sport participation. It is proposed that habitus can be seen as the intermediate mechanism that explains both adolescent sport participation and LLP (instead of seeing the former explaining the latter).

*Key words:* lifelong participation, adolescent sport, Bourdieu, field, habitus, literature review

## Introduction

This study examines the relationship between adolescent sport participation in Norway and lifelong participation (LLP) in physical activity. Sport here refers to organized and competitive activity (Coakley, 2001), while physical activity refers to any form of exercise where bodily movements are involved (WHO, 2007). The increasing attention on the relationship between physical activity and public health (Meld. St. 26, 2011-2012) renders sport as an important element in the discussion of public health for several reasons: (i) physical activity is often seen as a vehicle for tackling several Western health challenges (WHO, 2007); (ii) sport is the dominant physical activity for the adolescent population in Norway (Seippel et al., 2011); (iii) there seems to be a strong belief in the relationship between sport and health among public sector decision-makers (Departementene,<sup>1</sup> 2005).<sup>2</sup> Following the World Health Organization (WHO), the Norwegian Government White Paper on health maintains that ‘physical activity is a source to health and life quality and a central means in the work of people’s health’ (St. meld. nr. 16, 2002-2003, p. 28). The views expressed in this publication share those expressed in the White Paper on sport, that ‘sport’s instrumental value is, seen from the state, first and foremost related to the health perspective’ (St. meld. nr 16, 2002-2003, p. 29; St. meld. nr. 14, 1999-2000, p. 36; Meld. St. 26, 2011-2012).

Discussing Norwegian sport’s contribution to public health, and with the point of departure that the sports federation ‘... has defined health as one of its four core values’ (St. meld. nr 16, 2002-2003, p. 30), Skille and Solbakken (2011) identified an ambivalent relationship between sport and health. They concluded that health was both facilitated and constrained by sport. Sport is sustainable in relation to providing physical activity, but, on the other hand, the dependence on volunteerism makes sport vulnerable and unpredictable in relation to implementing state sport and/or health policy. The state has no guarantee that its health objectives will be achieved through sport (Skille & Solbakken, 2011). Despite indicating that sport does not necessarily provide for LLP because

- 1 Departementene refers to several ministries, which have worked together on a report on physical activity and health. This in itself shows the increased attention given to the relationship between sport/physical activity and public health.
- 2 A common definition of sport is that of Coakley (2001), which is based on four attributes: physical activity, competition, institutionalization and the desired outcome. The latter may be anything from instant enjoyment to health and other instrumental values.

sport and health are conceived as different fields (Bourdieu, 1977, 1990), Skille and Solbakken (2011) did not treat the numbers of adolescent sport participants and drop-outs or the reasons for sustained participation versus drop-out. In short, reflections upon the mechanisms leading to LLP are missing.

Thus, the aim of this paper is to investigate the relationship between adolescent sport participation and lifelong participation in physical activity. The main contribution of this paper is our theorization of the relationship. As a theoretical intermediate concept for analysing the mechanism leading to LLP (focusing on any explanatory power of adolescent sport participation), the concept of habitus is crucial (Bourdieu, 1977, 1990). First, we present the Norwegian situation in adolescent sport by utilizing existing research and registers. Second, we explore the association between adolescent sport and LLP through literature and analysis of former research from a relatively broad perspective. Having done that, we are able to conclude the paper with a discussion on the relationship between Norwegian sport and LLP, which is seen as a main contribution of sport to public health (Departementene, 2005; St. meld. nr. 16, 2002-2003; WHO 2007). Before moving on to the main arguments, the next section presents the theoretical perspective of habitus and fields as well as a note on methods.

## Theory

Following Bourdieu (1977, 1990), the relationship between adolescents' sport participation and LLP can be analysed utilizing the concepts of field and habitus. A field is a specific area of social practice which is relatively autonomous; it is part of – influenced by and influencing – the rest of society. At the same time, it can be perceived as a separate sub-world with unique characteristics, where actors contend for the capitals that constitute the field. These comprise a set of general capital forms (economic, social and cultural) as well as field specific or symbolic capital (Bourdieu 1977, 1990). A field exists because actors agree on the value of the field-specific capital, and see it worth struggling for. The field of sport exists, because actors consider victory in sport competitions worth struggling for (Bourdieu 1978). Thus, Norwegian sport can be conceived as one field, while health can be perceived as another (Skille & Solbak-

ken 2011), considering health not as a status of a person but as a relatively autonomous area of society.

Preferences in relation to social practices are made up of conscious and unconscious elements. Bourdieu refers to this as *habitus*, a theoretical concept which describes the magnitude and types of social and cultural capital which structure – but which do not determine – an individual's preferences for social practice. The *habitus* is the interconnection between 'macro' (the group's culture) and 'micro' (the individual's incorporation of this culture) (Bourdieu, 1978, 1986). Participation in sport during adolescence, or any physical activity in adulthood, can be considered as the outcome of the relation between demand and supply, or between what Bourdieu calls the individual's *habitus* and the field (Bourdieu, 1977, 1990). Given that social actors participate in different sporting practices which are available at any given time and in any given space, it should be possible to trace patterns in terms of who participates and in which activities over time (Bourdieu, 1986). These theoretical arguments are empirically documented in a number of studies (e.g. Brown, 2005; Engström, 2008; Jakobsson et al., 2012).

## Methodology

This is a literature study, where the exploration of adolescent sport participation is mainly based on reports from the study of a representative sample of the Norwegian teenage population aged 13 to 19 (Krange and Strandbu, 2004; Seippel et al., 2011). Data are also collected from the Young in Oslo survey (Strandbu & Bakken, 2007), Norsk Monitor (Breivik & Vaagbø, 1998; Hansen, 1999; Breivik, 2013; NIF, 2003), as well as research into adolescent sport and dropouts (Seippel, 2005; Skille, 2005). In addition, data from the Norwegian Olympic and Paralympic Committee and Confederation of Sports (NOC)<sup>3</sup> registers are utilised (NIF, 2008).

The review of literature on the relationship between adolescents' involvement and lifelong participation builds on database searches (first searching the database Sport Discus) and a snowball sampling. The key words sought for were 'lifelong participation' and 'longitudinal', respectively. On both occasions the search was limited to 'sport sociology'. Af-

3 NOC is the umbrella organization for all conventional (organized and competitive) sports in Norway. More details are included in the next section.

ter reviewing the relevant hits (with abstracts indicating that the paper addressed adolescent sport participation and treated LLP), the snowball approach was used and new material added. Included in the material are studies based on original empirical findings (Brown, 2005; Engström, 1999, 2008, 2010; ; Kjønniksen, 2008; Roberts, 2006; Roberts & Brodie, 1992; Scheerder et al., 2006; Telama et al., 1997, 2005; Trudeau et al., 2004; Vanreusel et al., 1997), and secondary analysis (Green, 2002, 2004; Green et al., 2005; Seefeldt et al., 2002; Tammelin, 2005; Thurston & Green, 2004).

One possible criticism of this study is that it is a literature analysis. Consequently, the existing data represent different cohorts of adolescents drawn from various contexts. Although the presentation simplifies a complex social reality, the review provides an opportunity to identify some of the mechanisms that explain the relationship between adolescent sport participation and lifelong participation in physical activity. Comparing the contemporary Norwegian situation of adolescent sport with mechanisms of the relationship between adolescent sport participation and LLP, this paper contributes to the research field. The Norwegian perspective is of interest and importance in the field of public health and sport, because sport is more equally distributed between groups (gender, age, class) than in many other countries (Bairner, 2010; Bergsgard et al., 2007; Esping-Andersen, 1990; Sivesind et al., 2002). Moreover, treating the mechanisms of the relationship between adolescent sport and LLP found in the empirical studies reviewed by utilizing the theoretical concept habitus, this study has a potential of theoretical generalization.

Another limitation of this study is its singular focus on sport as defined by Coakley (2001), comprising physical activities, competitive activities and institutionalized activities. Adolescents also attend self-organized physical activity and commercial training centres. Physical activities other than sport are only mentioned in the introduction to the next part of this paper in order to contextualize sport. Although this can be seen as a limitation, the very point of this paper is a critical view of the alleged contribution made by sport, since there is a strong belief among politicians that sport makes a significant contribution to public health by introducing youth to physical activity for life (Departementene, 2005; St. meld. nr. 16, 2002-2003; WHO, 2007). Again, considering habitus as the potential mechanism explaining LLP, it is advantageous to analyse both the contribution and constraints of sport in relation to LLP.

## Adolescent sport in Norway

Conventionally, adolescent sport takes place in the 7500 local and voluntary sport clubs throughout Norway (with five million inhabitants). The sport clubs are members of 54 specialized national sport associations, all of which are federated to the Norwegian Olympic Committee and Confederation of Sports (the NOC system). Thus, adolescent sport participation (in the NOC system) is recognized by the following attributes (Skille, 2005). First, participation is based on individual membership in a sports club. Second, sport takes place during leisure time, and is separated from school sport (physical education and other forms of physical activities during school time).<sup>4</sup> Third, sport is organized by adults. Fourth, Norwegian sport is competitive at every level; when a child starts playing sport, preparation for and participation in competitions are the focal points. In other words, it is suggested that sport is for people with a habitus which includes a willingness to submit to a competitive and training regime.

Until recently, research studies as well as NOC data showed a general decrease in the number of physically active adolescents throughout the teenage years (Krange & Strandbu, 2004; Strandbu & Bakken, 2007; Breivik & Vaagbø, 1998; Hansen, 1999; Breivik, 2013; NIF, 2003). The latest data from the Young in Norway survey (Seippel et al., 2011), show a new trend, although the main finding is stability of participation patterns in teenagers from 1992 until 2010. Twenty-four per cent of Norwegian adolescents were not physically active at all in 2002, while only 22% were not physically active in 2010 (Krange & Strandbu, 2004; Seippel et al., 2011). In 2002, 48% exercised relatively frequently (three times a week or more) while 56% did so in 2010 (Krange & Strandbu, 2004; Seippel et al., 2011).

The development throughout teenage years shows that 19% of girls and 17% of boys did not exercise at age 13, while the levels for inactive girls and boys at age 19 were 34% and 30%, respectively. Fifty-one per cent had exercised once or more during the preceding week in self-organized physical activity. This pattern remains relatively stable throughout adolescence (Krange & Strandbu, 2004). While the level of self-organised activity is stable through teenage years, and the level of participation

4 An exception here is secondary schools with special arrangements between the school (which may be public or private) and the conventional sport system.

in commercial training centres is increasing, the aggregated decrease in physical activity is explained by the decrease in sport participation.

Half of adolescents aged 13 years old participate in organized sport, but only a quarter of those aged 19 years (Kränge & Strandbu, 2004). NOC's numbers show a membership of 428,712 in the age group 6-12, and 163,852 in the age group 20-25 (NOC, 2008).<sup>5</sup> While there is a significant decrease in sport club membership during adolescence, there are contradictory findings regarding whether the dropouts stem from competitive or recreational forms of sport. According to Kränge and Strandbu (2004), it is in the parts of organized sport that are recreational and less competitive, that the decline in adolescent membership is largest. The question if there is a lack of sports on offer for those adolescents who want to do sport just a little (for example one or two days a week just for fun and not necessarily every day in order to improve sport skills and achievement level). The impression that a habitus suitable for sport is one that includes a willingness to follow a regime where training is priority in life is strengthened. On the other hand, Seippel (2005) claims that competitiveness increases the chance of dropping out, and, in the same vein, that recreational sport implies increased chance of continuation.

Neither the Young in Norway survey (Kränge & Strandbu, 2004; Seippel et al., 2011), nor Norsk Monitor (Breivik 2013; Hansen, 1999; NIF, 2003), report the number of sports played by adolescents. NOC numbers may give some indication since the NOC database aggregates numbers reported from each national sport association. In that respect, it is both possible and normal to duplicate the registration of individuals (including children and adolescents) who are members of several associations. The decrease in teenager memberships registered in the NOC database (NIF, 2008) is greater than the decrease of adolescent sport participants in the survey reports (Kränge and Strandbu, 2004; Seippel et al., 2011; Strandbu & Bakken, 2007). This indicates a tendency to specialize in one sport during adolescence.

This impression of specialization is confirmed by qualitative studies; for example, an eighteen year old girl tells this story from when she was fourteen (Skille, 2007, p. 376):

Football, yes . . . because the cross-country skiing coaches said it was okay that we did something else during summer time . . . The football

5 In any case, these are high numbers in a population of just over 5 million. The point here, though, is the decrease of numbers from younger to older age groups.

coaches said the same, but when we came back [to football] after the winter season. . . It was like: “weren’t [you] here during winter time?” and stuff. I felt I had to choose.

The field of sport seems to be most suitable for people with a specific habitus; it fits those able to make the required choices (Bourdieu, 1978, 1986), for example in relation to specialization of sports. Thus, some people have a habitus which, among other elements, comprises sporting interest and skills.

Considering the reasons for adolescents’ dropouts from sport, research from Norway is ambiguous. On the one hand, some reports indicate that people quit sport because there is too much adult control and because of lack of self-governance (Seippel, 2004, 2005; Skille, 2005). On the other hand, new sport programs are developed as a response to conventional – that is member based, competitive and adult controlled – sport (Skille, 2005; Krange & Strandbu, 2004; Strandbu & Bakken, 2007). Krange and Strandbu (2004) found that 47% of adolescents were members of sport clubs in 1992 compared to 40% in 2002. At the same time, an increase in the number of adolescents actually training in sport clubs (from 40% in 1992 to 42% in 2002) was revealed. This paradox is explained by specific sport programs aiming at preventing dropout, and getting outsiders involved in sport by not requiring membership, down-toning competitiveness, and self-organization of activities (Krange & Strandbu, 2004; Skille, 2005).

The Young in Norway survey (Seippel et al., 2011) showed that the numbers of adolescents that are members of sport clubs had increased (from 40% in 2002) to 45% in 2010. The main explanation is that more youth participate in sport at a younger age than before. Today, 85% of all adolescents in Norway are or have been participating in sport. This leads, on the one hand, to larger participation numbers when the teenage group (13-19 years old) is seen together; on the other, it leads to earlier dropouts than before (Seippel et al., 2011).

Summing up, the characteristics of adolescent sport in Norway are that between the ages of 13 and 19, half of the sport participants quit sport. Two reasons for quitting are too much focus on competitiveness and too much adult control. For those who continue to be involved in sport, it is often the case that they specialize in one sport at the expense of others. Traditionally there seems to be a relatively clear relationship between the requirement of the sporting field and the individual habitus. In recent years there are examples of efforts of adaption of the sporting



field to fit various identities or habitus. In the next section, we explore the literature in order to identify how the characteristics of adolescent sport can influence LLP.

## Adolescent sport and lifelong participation (LLP) in physical activity

Exploring the literature, we make a two-step analysis. First, we review international literature concerning the relationship between adolescent sport and LLP.<sup>6</sup> Second, we report the literature from the Nordic countries on this topic. We establish a knowledge base based on scientific studies about any relationship concerning adolescent sport and LLP, before proceeding to analyse the relationship between this knowledge and the situation in Norway as presented above. In that respect, we increase the level of relevance by focusing more on research in similar contexts from which the data in the former section was reported.

### *International studies*

Vanreusel et al. (1997) studied the relationship between sport participation in the teenage years and LLP among Belgian males. Using a longitudinal design they investigated whether involvement in sport during teenage years (ages 13-18) increase the chances of being an active adult (ages 30-35). Within the teenage group there is a strong relationship between sport participation in the younger years compared to participation in late teenage years (Vanreusel et al., 1997). Across life phases, however, moving from adolescence into adulthood, tracking is higher for inactivity than for activity. Most importantly, if people stay inside sport from early teenage years until later teenage years, the probability for being active as an adult increases. There is a correlation between sport involvement at ages 17 and 18 and a physical active lifestyle in adulthood (Vanreusel, et al., 1997).

When Seefeldt et al. (2002) tried to identify the determinants explaining physical activity in adulthood, they scrutinized the common assumption that physical activities during youth continuing into adulthood

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6 Although we refer to LLP as lifelong participation, the term is vague, as the lifelong perspective is not taken into account in the studies we review. The point is to scrutinize physical activity in later (adult) life phases (than adolescence). .

lacks empirical evidence, especially where based on longitudinal studies. However, turning to Vanreusel et al. (1997), it was clear to Seefeldt and colleagues that although sport participation at ages 13 and 14 does not correlate with LLP, sport participation at ages 15 to 17 does correlate ( $r = .17$ ,  $r = .20$ ,  $r = .30$ , respectively). Although the coefficient of  $.17$  is very low, the point here is that the correlation (with physical activity in adulthood) increases for every year an adolescent continues to partake in sport. Further, it appears that various styles of sport engagement for youths may result in different socialization patterns in adulthood, as well as in various de-socialization patterns (Vanreusel et al., 1997, p. 384). People with a recreational sport participation style appear to have a better chance for continued sport involvement in adulthood than those with a competitive sport participation style.

Scheerder et al. (2006) studied the relationship between adolescent sport involvement and LLP, among Belgian females. Using a longitudinal design, 12- to 18-year-olds were studied in 1979, and again 20 years later. They found no correlation between early teenage sport involvement and LLP, while the correlation between sport involvement in late adolescence and adulthood was relatively high ( $r = .41$ ). The relationship between non-participation in sport during adolescence and physical inactivity in adulthood was even stronger. Moreover, Scheerder and associates found that the longer a girl is involved in organized activity in a sport club in her teenage years, the greater the likelihood of her being active in sports in adulthood.

On contrast, the participation in non-organized sports during adolescence does not increase the probability of being involved in sport in adulthood. Both intensity and variety of teenage sport involvement seems to affect lifelong participation positively: 'A regular and intensive sports pattern during adolescence generates significantly better opportunity to participate in sport during adulthood' (Scheerder, et al., p. 425). People who were involved in four or more sport disciplines during adolescence have approximately four times greater chance of being active in sport as an adult. Thus, staying inside sports during adolescence and gaining a broad repertoire are two predictors for LLP.

A study by Beunen et al. (2004) confirms that participation in organized sport during adolescence predicts LLP, for both males and females in Belgium. However, a study from Canada by Trudeau et al. (2004) contested the Belgian conclusions by revealing significant gender differences. For females, the time spent in non-organized physical activity

during childhood correlated with the weekly participation in physical activity in adulthood. In contrast, time spent on organized sport activities by males correlated with physical activity in adulthood. That is, there may be different routes for females and males, from sport participation in adolescence into LLP (Beunen et al., 2004).

In a UK context, Roberts and Brodie (1992) hold that adolescents who are actively involved in three or more sports throughout their adolescence are less likely to drop out. Therefore, the most successful way to increase the chances for lifelong participation according to Roberts and Brodie (p. 48) is ‘not be to encourage teenagers to concentrate on the particular sports in which they excel’, but rather to encourage youth to engage in a number of disciplines. In later works, on the basis of various sources (UK participation surveys, time budget studies, economic statistics, and other research),<sup>7</sup> Roberts (2006) holds that:

The best predictor of any individual’s future uses of leisure is that same person’s past behaviour, this is a far better predictor than the individual’s current circumstances – type of occupation, employed or unemployed, for example. An individual’s past leisure behaviour usually proves an excellent predictor from day to day, week to week and, indeed, across the life span (p. 156).

A special feature of sport compared to other leisure activities, such as so-called “high culture activities” – a minority interest related to early family socialization – is that most children are involved in sport. However, the fact that most children are involved does not lead to lifelong sports involvement or physical activity habits. Children’s sport for the masses does not, ‘as far as we know, [lead] to a wider range of long-term benefits’ (Roberts, 2006, p. 157). Roberts (2006) continues with some possible explanations for this.

Two factors appear crucial to whether people will remain sports-active into adulthood. The first is the richness of their early sport socialization – not the sheer amount so much as the number of different sports that individuals learn to play. /.../ The second crucial factor is whether individuals remain in sports during their transitions from education into the labour market, marriage and parenthood (p. 157).

7 Roberts (2006) primarily uses the General Household Survey, which is conducted annually among a representative sample of households in UK. The questionnaire includes a battery of leisure activities recorded during the last four decades, which – coupled with background information – enables Roberts to distinguish between different social groups’ activities and trends over time.

Drawing on the works of Roberts (1996a, 1996b; Roberts & Brodie, 1992), Green (2002) emphasizes the challenge of continuing sport participation during life phase transitions, such as going from education to the labour market, getting married and having children, and that becoming locked into sport depends first and foremost on ‘the chief characteristic’ of having a ‘wide sporting repertoire’ (Green, 2002, pp. 174-175). Moreover, a point often overlooked in the statistical and longitudinal studies cited so far, is related to the adolescents’ perception of their own leisure time. According to the adolescent as such, and not only as sportsman/woman (Green, 2002, 2004; Roberts, 1996a, b, 2006), adolescence is about development into an autonomous human being, which includes detachment from parents and other adults, and the search for arenas of self-governance (Green, 2002, 2004; Roberts, 2006).

Before moving on to studies from the Nordic context, let us sum up the argument so far. Despite some divergences between studies, countries and genders, it seems that the relationship between adolescent sport participation and LLP depends on (see also Tammelin, 2005): (i) continuing with sport into late teens (versus dropping out earlier), (ii) having a wide repertoire and a various sport experience, and (iii) perceiving self-control or self-governance in relation to one’s leisure time. Although the studies mentioned did not consider the social background of adolescent sport participants, the theoretical approach chosen gives an idea that participation in the sport field requires a specific habitus (Bourdieu, 1978, 1986). It is indicated that a habitus suitable for sport participation in late adolescence correlates with a habitus for physical activity in adulthood.

### *Nordic studies*

In Sweden, Engström (1999)<sup>8</sup> tested four sport related characteristics (independent variables) of 15 year-olds against physical activity at age 41 (dependent variable): sports involvement, membership in sports club, attitude towards physical education (in school), and grade in physical education. Independently, all variables explained physical activity at age 41 significantly. The grade in physical education at age 15 was the strongest predictor for physical activity at age 41. Engström interprets a good grade in PE as being able to accomplish a number of sports, and thereby

8 Subsequent works of Engström are cited later. This first book is taken as a point of departure, of which findings are confirmed in later studies.

supports the broad repertoire thesis proposed by Roberts (2006) and Green (2004). Engström (1999, 2008, 2010) concludes that sport participation during adolescence does not guarantee being active as an adult. Thus the general assumption that sport participation in adolescence explains LLP is only partly supported (Engström, 1999, 2008, 2010).

In Finland, Temala et al. (1997) found that participation in organized sport during adolescence was a good predictor for physical activity later in life. Their findings are in line with studies reported above, and showed a continuation of sport involvement into later adolescence increases the chances for being engaged in physical activity in adulthood (see also Tammelin, 2005; Temala et al., 2005). They conclude by emphasizing that it is important to encourage young people to begin and continue a high level of physical activity during childhood and adolescence.

A Norwegian study by Kjønneksen (2008) revealed that inactive men continue to be inactive from adolescence into adulthood, while inactive female adolescents actually increase their level of activity during adulthood. Kjønneksen also found that participation in several activities during adolescence was the strongest predictor for LLP, and secondly that participation in organized sport during childhood and adolescence predicts LLP. Early membership and sustained membership in sport clubs (or number of years as sport club member), as well as the number of sport club memberships,<sup>9</sup> all contributed to explain LLP (Kjønneksen, 2008).

Summing up, the studies of Temala et al. (1997, 2005) and Kjønneksen (2008) confirm the findings in the international literature: being a long-term member of organized sport and having a broad repertoire of sport activities increases the probability of being physically active in adulthood. Thus, it is debatable whether the sport system contributes to increase the possibilities for LLP. On the one hand, the 25% of 19 year-olds who still play organized sport have a theoretically high probability of LLP. On the other hand, the fact that NOC loses many of its members during the significant phase of life reduces the probability of LLP for many.

However, at this point it seems that we are left with the two competing theories (of Kjønneksen, 2008). It could be claimed that entering sport at an early age will result in many years in sport which in turn increases the probability of LLP. On the contrary, entering sport at an early

9 In Norway, it is possible and quite common, especially for children, to be a member of more than one sport club. Consequently, one becomes a member of more than one specialized national sport association, and is hence counted more than once in the umbrella organisation's (NOC's) registers.

age can lead to earlier dropout thereby decreasing the probability of LLP. Regarding the possible impact of participating in several sports into late adolescence, whereby the probability of LLP is increased, few safe conclusions can be drawn. The NOC system apparently does not contribute to increasing the probability of LLP as long as each of the specific sports requires choosing and specialization during adolescence (Skille, 2005, 2007).

This literature review proposes some principles for how teenage sport can increase the chances for LLP. Nevertheless, longitudinal studies seen in retrospect make no basis for predicting the future. It is worth reiterating that the explanation of people's physical activity habits in adulthood is more complicated than just tracing it back to sport habits in earlier phases of the life course (Engström, 1999). In a later book, Engström (2010) underscores that the positive association with physical activity can be seen as an indicator of having the ability and willingness for developing a broad repertoire of activities. Physical activity is thus a possible solution to balancing the one-sided focus of specialization seen in sport (Engström, 2010).

Taking into account a more complex approach to explain LLP, it seems that many variables explain both adolescent sport participation, adulthood physical activity, grades in physical education and grades in other school subjects (Engström, 2010). These variables are associated with social class, family income and parent's education and occupation. In brief, these are variables describing people's position in social space and their habitus (Bourdieu, 1986; Engström, 2010). Engström refers to Bourdieu when he sees sport and physical activity as a phenomenon of distinction and something reserved for people with a relatively clearly defined habitus. The habitus is composed of middle class values, here defined and measured by high education and relatively high income. The theoretical discussion is continued below.

## Discussion

This paper deals with the relationship between adolescent sport participation and lifelong participation of physical activity (LLP). Based on the work of Skille and Solbakken (2011), who considered sport and health as different Bourdieuan fields (as was stated at the outset of this paper), we have considered mechanisms allegedly leading to LLP, assisted by the

Bourdieuian concept of habitus. The first objective was to critically scrutinize the causal relationship between adolescent sport participation and LLP claimed by politicians and others (Departementene 2005; St. meld. nr. 16, 2002-2003; St. meld. nr. 14, 1999-2000; Meld. St. 26, 2011-2012; WHO 2007). It is seen as a contribution to the public health research to investigate such mythical beliefs based on thorough analysis of available empirical data.

In sum, this paper indicates that only to a limited degree does sport provide probabilities for lifelong participation in physical activity, and that the explanation is given by the theoretical concepts of habitus. Let us elaborate. After repeating the empirical arguments for the statement (that sport provides probabilities for lifelong participation in physical activity only to a limited degree) which followed three lines: (i) While it is believed that sport participation into late adolescence increases the chance of LLP, the number of Norwegian adolescents participating is halved through teenage years. (ii) While it is believed that participation in several sports during adolescence increases the chance of LLP, the general pattern in Norwegian sport is that the focus is on one sport after the age of approximately 14. (iii) While adolescent's perception of self-governance and autonomy regarding adult control motivates continuation, Norwegian sport is regarded as being subject to adult control at every level.

It seems that a relatively specific habitus explains both adolescent sport participation and LLP, and that this specific habitus has both objective and subjective characteristics. The objective elements are coming from typical middle class families with high education and relatively high income. The more subjective elements – using Bourdieu's (1986) wording – are taste for sport involvement throughout adolescence, taste for many sports during adolescence, and taste for self-governed sport during adolescence. The establishment of new and alternatively organized sport programs nuances this picture, as does attendance in self-organized physical activity and commercial training centres (Breivik, 2013; Seippel et al., 2011). These are examples of efforts to make the field of sport more adapted to various forms of habitus and to the requirements in the field of health (Skille and Solbakken, 2011). However, these lines will not be treated in more detail here. In this section, two refinements will be made. First there are some critical comments to the above findings that should be added. There is, for example, no consensus in the reviewed literature

on the relationship between adolescent sport and LLP about whether intensity or breadth is most important.

For that reason, and in contrast to the claim that specialization leads to more intense participation and therefore increases the probability of LLP, it could also be claimed that a broad sporting repertoire does indeed increase the probability of LLP. Regarding self-governance, it is not clear whether this point contradicts the suggestion that being locked into organized sport early increases probability of LLP. Early sport participation, for example at the age of seven or eight, necessarily requires some adult governance. In any respect, the ongoing processes of loosening up the adult control in some sport clubs seem to be in accordance with the defined criteria. Thus, the relationship between the field of sport and the field of health is a complicated one, and one solution is to trace the habitus for LLP.

It is well to remember that there are several factors regarding LLP that are not treated here.<sup>10</sup> As shown by Engström (1999, 2008, 2010), a combination of social position variables and sport involvement variables in teenage years, are the best predictors for LLP when taken together.<sup>11</sup> Engström (1999, 2008, 2010) underscores the social dimensions and the social stratification associated with both sport participation during adolescence and physical activity in adulthood. It is thus relevant to continue the discussion using an explicit sociological approach, moving on from a focus on fields to a focus on habitus (Bourdieu, 1977, 1990) as the individual mechanism explaining LLP.

More precisely, participation in sport during adolescence as well as participation in physical activity in adulthood are both explained by individual habitus. This is in line with Bourdieu's use of the concept, both in relation to sport (Bourdieu, 1978) and in relation to lifestyle and leisure more generally (Bourdieu, 1986). Although Norway is an egalitarian so-

10 See Sallis et al. (2000) for a review of correlations involving sport participation in childhood and adolescence, and Ståhl et al (2001) for an international study about the significance of social conditions for physical activity in adulthood.

11 Engström (1999) found a strong relationship between measurement of social position and physical activity at age 41. He found that grades in theoretical subjects was closely correlated with the grade in physical education, and physical activity at age 41. Social position, measured by father's occupation at age 15, correlated with the level of physical activity at age 41. The two latter (grade in theoretical subjects and father's occupation) can be considered to work indirectly, via education and social position at age 41, which, in turn, explains physical activity at age 41. The combination of scores for these three variables (physical education grade, theoretical subjects' grade and social position) from age 15, predicts quite strongly whether one is physically active as an adult (Engström, 1999).



ciety built on the social democratic welfare state model (Bairner, 2010; Esping-Andersen, 1990; Wilkinson and Pickett, 2010) with a civil society based on the average man and women (Sivesind et al., 2002), sport participation is stratified across dimensions such as gender, class and ethnicity (Seippel et al., 2011; Skille, 2005; Strandbu & Bakken, 2007). Scrutinizing the relationship between adolescent sport participation and LLP by considering sport and physical activity as relatively autonomous fields, the question arising is whether this is it the same habitus that predicts participation in both sport as an adolescent and physical activity as an adult.

The field of sport comprises individuals with certain desires and demands associated with the competitive culture in the field (Skille, 2007; Skille and Solbakken, 2011). Following Bourdieu (1978), the players of the sport field reflect that accomplishments such as being physically fit have a habitus more in line with being competitive and rule bound than others. They are willing and able to undergo training to improve their accomplishments in future competitions. Seeing the habitus as the interconnection between the group's culture and the individual's incorporation of this culture (Bourdieu, 1978, 1986), a new question arises: Are there similar biographical characteristics of those fitting into the sport field as adolescents, and those fitting into the field of physical activity as adults?

Empirically, it is shown that social actors who participate in sport during adolescence also participate in physical activity as adults. As predicted by the theory, it is thus possible to identify some patterns of participation and (what kinds of) activity over time (Bourdieu, 1986). Going back to Engström's (1999, 2008, 2010) analysis of LLP in relation to a number of characteristics identified in adolescents, an interesting point is identified. Grades in physical education explain most of the predictive values for whether that person is physically active in adulthood. Most interestingly, grades in PE correlate with grades in other school subjects and parents' education on the one hand, and sport participation on the other.

The point is that the grade in PE is the point of gravity for many of the usual explanations and thus sum up very much of the field-habitus relationship to sport in adolescence and LLP. People holding specific positions in the social space such as adolescents from middle class families (parents with high education and relatively high income), tend to be involved in sport more than others (Engström 1999, 2008, 2010). People from the same positions of social space, middle class adults (with high

education and relatively high income), tend to be physically active in adulthood. All in all, considering the habitus as the individual's (partly taken-for-granted) dispositions for relating to (interpreting and acting) in the world (social space as well as specific fields) (Bourdieu, 1978, 1986), indicates that it is a similar habitus that leads to participation in sport during adolescence and to participation in physical activity in adulthood.

To conclude, there is limited evidence to claim a causal relationship between adolescent sport participation and LLP. However, there seems to be an underlying mechanism that explains both, namely a habitus comprising accomplishments suited to both fields. Thus, the relationship between adolescent sport participation and LLP seem to depend on a specific habitus (Bourdieu, 1978), made up by a broad sporting repertoire and ability for self-governance of physical activities.

### *Implications for practice, policy and research*

If the goal for sport organizations is to keep adolescents inside sport in order to increase the probability of LLP, practitioners should encourage them to practice several sports. In order to do that, the adults in sport should be more of facilitators than of leaders. Whether these claims are realistic is another debate, which cannot be considered here. To increase the probability of LLP, the simple solutions to be drawn from the reviewed studies is to provide PE so that more adolescents gain good grades as this is the best predictor of LLP (Engström, 2010). Looking at sport, public authorities should reward sport clubs that succeed in keeping adolescents longer and in several sports. If lifelong participation is a goal, the focus needs to shift within sport organizations from specialization into broadness: 'It is the breadth of involvement, not simply the volume, that tracks from childhood and adolescence through to adulthood and [which] is crucial to adherence in later-life' (Green, 2004, p. 75). The shift needs to go from competition and performance to recreational and lifestyle activities, with the aim of developing a wide-ranging sporting repertoire. Thus, 'it is evident that sports clubs are far less important in terms of fostering mass participation than is commonly thought to be the case' (Green, 2004, p. 77).

Moreover, public authorities should take into consideration other forms of physical activity, and support training centres and facilitate more self-organized physical activities. Regarding the latter, some changes have already occurred. The vision for sport policy which used to be

‘sport for all’ (St. meld. nr. 41, 1991-1992) has been changed to ‘sport and physical activity for all’ in the last White Papers on sport (St. meld. nr. 14, 1999-2000; Meld. St. 26, 2011-2012), to underscore that public sport policy concerns more than competitive activities organized under the NOC system.<sup>12</sup> In that respect, there could be an increase in the opportunities for LLP, because ‘what seems to matter more is providing young people with a repertoire or portfolio of sports and physical activities’ (Green et al., 2005, p. 40).

For research, this paper has generated a number of questions that should be scrutinized in new studies. First, empirical research is needed to reveal sports clubs’ views on LLP, whether they see it as their job to socialize people into LLP, and if so, whether they will do something with their sport provision to achieve it. Second, to get a broader understanding of the adolescents’ lives as a whole (Roberts, 2006), other contexts than sport involving the adolescent individual should be reviewed and studied empirically. For example, taking into account school physical education in relation to other elements of adolescent lifestyle could be a next step. Third, LLP should be seen in relation to other debates and trends in society such as health discourses and healthy habits among people. As far as we are aware, there are no studies from the Norwegian context addressing these issues as is the case in several works from the UK for example (Evans, 2003; Fairclough et al., 2002; Green, 2002, 2004; Green et al., 2005; Thurston & Green, 2004-2006). Hence, further Norwegian research could be included in comparative studies.

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<sup>12</sup> The White Paper does not include commercial training in the definition of physical activity because it is not regarded as a function of the state to support commercial training centres.

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