

Skauge, M., Seippel, Ø. (2020). Where do they all come from? Youth, fitness gyms, sport clubs and social inequality. *Sport in Society*.  
<http://dx.doi.org/10.1080/17430437.2020.1840554>

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<http://dx.doi.org/10.1080/17430437.2020.1840554>

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## **Introduction**

Two trends characterize physical activity in western societies. Exercising in fitness gyms is increasingly popular, and forces of social inequality have gradually become more pressing, also in club-organized sports (Andreasson and Johansson 2018; Piketty and Goldhammer 2014; Vandermeerschen and Scheerder 2016; Wilkinson and Pickett 2010). In this study, we investigate how these trends – the expansion of fitness exercise and the influence of social inequality in club sports – matter for physical activity patterns among young Norwegians.

We ask two sets of questions. First, we study the prevalence of physical activity among young people and start with an overview of exercise patterns in fitness centres, which we then compare with exercise patterns in sports clubs and self-organized exercise. We also address the issue of social inequality in physical exercise and investigate how such exercise patterns depend on athletes' age, gender and socioeconomic status. Second, we examine the interplay between the two trends: How does social background influence the transition from club sports (more prevalent among children and adolescents) to commercial fitness participation (more common among older youths and adults)?

The importance of exercise for physical and mental health, individual wellbeing and social relations is well known (Dalen and Seippel 2019; Warburton et al. 2006). Researchers have also documented that social background matters for the level and the type of exercise activity, especially for adults (Lagestad and Mehus 2018; Spaaij et al. 2015). For adolescents, we have research on social inequality in sport clubs, whereas there is scant knowledge on exercise outside sport clubs: its prevalence, dependence on social background and links to club exercise (Andersen and Bakken 2019; Bourdieu 1978; Ulseth and Seippel 2011). Accordingly, we will study how many young people exercise in fitness gyms, compared with club sports and self-exercise, and their social background. What remains a contentious research question is how participating in exercise at one stage in life – for instance, being a

member of a sport club at the age of ten – matters for exercise later in life, for example, exercising in a fitness gym some years later (Telama 2009). Especially for transitions from club sports to fitness in adolescence, research is scarce (see Gatouillat et al. [2019] for a qualitative study).

To answer our two sets of questions, we proceed with a presentation of the Norwegian case, previous research and our theoretical framework. The data for our study are obtained from a representative cross-sectional survey among Norwegian youth in secondary (13-15 years old) and upper secondary (16-18 years old) schools (N = 177,464). We present these data and methods before outlining the empirical results in three parts: 1) exercise levels and participation in various exercise contexts – club sports, fitness gyms and self-exercise – by age, 2) exercise by gender and socioeconomic status and 3) sport club participation – duration of participation/timing of dropout – and its link to present fitness participation and self-exercise. Finally, we offer some concluding considerations and highlight some implications of our findings that are relevant to further research.

## **Context, previous research and theories**

### *The Norwegian case*

Studies on Norwegian youth sports have mostly focused on sport clubs. These clubs are part of the Norwegian Olympic and Paralympic Committee and Confederation of Sports (NIF), an umbrella organization organizing 55 national sports federations, 11 regional sports federations and approximately 12,000 local sport clubs. More than 90% of Norwegian youth (13-18 years) have been members of a sport club at least once during their upbringing (Bakken 2019). We find close links between the voluntary and the public sectors in Norwegian sports, and public funding for facilities and organizational infrastructure are important for youth sports (Seippel and Skille 2015; 2019). Even though NIF is substantially funded by public

resources, operations of sport clubs depend even more on voluntary work. For many Norwegians, youth sports operate as an extension of family life. Introducing children to organized sports at an early age is perceived as good parenting and parents are expected to volunteer in their children's sport clubs (Johansen and Green 2019; Strandbu et al. 2019). The strong position of club sports, the close links between sports and the public sector and family life, makes it relevant and useful to compare the Norwegian case to other western prosperous nations (Bergsgard et al. 2007; Breuer et al. 2017). Compared to most Anglo-Saxon nations, the position of school sports is weak in Norway.

The traditional sport club monopoly for youth sports has been seriously challenged for two decades. In Norway, the first commercial gym was established in Oslo in the 1950s, and a major growth in the industry occurred in the 1990s (Steen-Johnsen and Kirkegaard 2010). Since 2009, the number of gyms has doubled; currently, there are approximately 1,300 fitness centres in Norway. At present, over 80% of the Norwegian population, 16 years old and above, exercise at least once a week in a fitness gym. In 2001, 18% of the population stated that they had exercised in a fitness gym during the year. In 2019, the corresponding percentage was 46% (Statistics Norway 2019). The consequence of the growing centrality of fitness exercise is a new role for a sport club as a public health provider (Kirkegaard and Østerlund 2010). While the proportion of Norwegian youths participating in club sports has been remarkably stable for decades, the number of young (13-18 years) fitness participants has steadily increased (Rafoss and Troelsen 2010): from 16% participating on a weekly basis in 1992 to 40% in 2018 (Bakken 2019; Seippel et al. 2011).

Thus, fitness is the exercise form that has increased the most among Norwegian youth over the last 30 years, and this growth persists and even intensifies into adulthood (Seippel et al. 2012). The shift from sport to fitness among contemporary youth also applies to the western world in general. Despite public health efforts to support it, teenagers' sport

participation is declining in European countries (Breuer et al. 2015). To complete the picture, it is timely to remember that self-exercise (physical activity outside the club sports and fitness context) remains the exercise form with the highest participation among young Norwegians (Breivik and Hellevik 2014).

### *Late modern society and exercise motives*

There are many reasons for these shifts in exercise habits from sport clubs to fitness gyms.

We first identify some developments central to late modern societies to understand how various macro trends play out at the individual level, as motives and struggles for identities, before we present Bourdieu's concept of habitus to grasp the social inequality related to these trends. Overall, late modern lives are busy and fluid (Bauman 2000; Featherstone 1991).

Individuals must “*shop around*” in the supermarket of identities’ (Bauman 2000, 83). Fitness exercise responds to the need for order and flexibility in a hectic everyday life yet also serves as a site of body and character investment. It is a vehicle for self-production at a time when individuals are held responsible for producing their own identities (Featherstone et al. 1991; Glassner 1989; Shilling 2007; 2016). The expansion of fitness may reflect both late modern life forms and ideals (Maguire 2007). Whereas this general picture is mostly associated with adults, we find much of the same craving for more flexibility among young people. Finally, these trends are also clear in parents’ involvement in youth sports, which reflects a broader tendency for involved parenthood (Friedman 2013; Stefansen et al. 2018).

These shifts also point to the motivational structures associated with various exercise forms. Stereotypically, fitness exercisers are less devoted to fun, excitement, community, friendship and winning and more concerned with instrumental and expressive motives, such as having healthier and more attractive bodies (Stewart et al. 2013). For sport club participants, enjoyment, social relations and competition are more important motives, and the

least widespread reason for sport club members is body and appearance (Millington 2018). The distinctive motives of fitness and club sport participants are also evident in the Norwegian context (Seippel 2006). The most important motive for Norwegian youth beyond being physically active is to stay fit, and the most important reason for not participating in organized sports is the unwillingness to commit to regular exercise schedules typical of the sports organization (Ødegård et al. 2016). The greater value added to specific bodily rewards and flexibility in scheduling, at the expense of achievement and community, suggests that young people's exercise has become more individualized (in late modern terms: from community- to self-orientation) and that fitness fits better into this picture than club sports. This situation may especially apply to young girls.

More girls than boys state that they do not participate in organized sports because they are poor in sports, are not concerned with presenting themselves to others as competent (showing off skills) and are not too interested in competition. Furthermore, exercising for better health and a slim body is a more important motive among Norwegian girls (Seippel 2016), suggesting that the ongoing individualization of exercise motives – the shift from achievement to recreation – could be more evident among girls. Although we do not examine exercise motives in this paper, the idea about motives helps in understanding both the transition from association sport to fitness gyms during adolescence and the dynamics behind Bourdieu's notion of habitus as a source of social inequality in sports. The expansion of fitness participation in recent years means that the youth are offered more opportunities for physical activity than previously: from traditional club sports to commercial fitness. The habitus-perspective is useful in understanding the choices of exercise among youth (what is preferred: sport or fitness).

*Bourdieu on social inequality (in sports): habitus*

In late modern societies, fitness represents a new opportunity for exercise, which responds to the higher need for flexibility among actors who feel less attracted to the competitive logic and the regular time commitment in club sports. Bourdieu's (1984) concept of habitus complements these insights with theories on social inequality related to socioeconomic status and gender.

According to Bourdieu, social groups with similar economic and cultural resources (capital) tend to share certain sociocultural preferences. Bourdieu's contribution to the sociology of sports is the empirically documented hypothesis that social differences in sport practices are structurally influenced by actors' social positions (by the amount and the composition of capital) and '*habitual (pre)dispositions*' (Bourdieu 1984, 33). Habitus, in the general sense of the term, entails cultural variations in preferences and tastes, stemming from socialization processes that are internalized in the subconsciousness, mostly at a pre-reflexive level. Bourdieu (1984; 2001) himself emphasizes the classed and the gendered dimensions of habitus. For sports, his survey data show how social class socialization explains why people in various social strata engage in distinctive sport practices. While the middle-class and the upper-class segments treat the body as an object of continuous investment from a lifelong health perspective ('the body as an end in itself', that is, the body as a sign rather than an instrument), the working class has a more instrumental view associated with expressive motives, such as appearance ('the body for others'). The upper class is overrepresented in costly (in financial terms) and aesthetic sports, such as tennis, while groups farther down the socioeconomic hierarchy prefer less expensive and more 'vulgar' sports, such as boxing (Bourdieu 1984). The Bourdieusian hypothesis of class-based meaning attached to sport practice – what Wilson (2002, 13) refers to as '*the paradox of social class and sports involvement*' – finds some support in the Norwegian context (Seippel 2006).

In the beginning, fitness was an expensive form of exercise, with a certain upper-class status symbol (Steen-Johnsen and Kirkegaard 2010). The last decades have witnessed a more differentiated field of fitness, from the least expensive to the most lucrative, implying that the social class profile of fitness participation is probably less significant than previously. Fitness also has a cultural meaning. On one hand, it is a body-constructing scene designed for ‘staging’ self-identity and ‘building’ the body, perhaps closer to a lower-class habitus (in Bourdieusian terms) by being oriented to bodily attributes rather than competition, community and team spirit (Sassatelli 2010). What sets fitness apart from organized sports is thus the broader social logic and spectrum of motives in commercial fitness – ranging from health to appearance and recreational gains – whereas the logic of rivalry (competition) is strongly dominant in competitive sports.

The greater heterogeneity in fitness, compared with the club sport culture, implies that fitness (apparently more ambiguous in its social prevalence) functions as a driver of a greater range of exercise motives. Compared to fitness exercise, club sports in the teen years are probably more exclusionary by being adapted to a more defined group of young people. While most Norwegian children (93%) are recruited to club sports at a young age (primary school), only half of the youth population (13-18 years old) still participates in club sports (Bakken 2019). The high dropout levels from organized youth sports imply more exclusionary – in terms of both economic costs and the gradually more evident logic of competition – youth sports in the teen years that fit specific groups. These comprise those who can afford the increasing costs caused by the rapid professionalization of sports in recent decades (Peterson 2008), and at the same time have the required physical skills (talents) and the competitive mindset (habitus). Against this backdrop, we hypothesize greater socioeconomic differences in club sports than in fitness.

Bourdieu pays attention to how the gendered habitus explains gender inequality. Men and women use their bodies in distinctive ways as gender norms and expectations through socialization, embodied as gender patterns and internalized as self-evident forms of gender identity. Consequently, men and women become ‘victims’ of these gendered ‘habitus’ in everyday life, for instance, in the division of labour at home (men doing the physical heavy work versus women’s cleaning, cooking, etc.) (Bourdieu 2001). The gendering of habitus may also apply to the fields of sports and fitness, for example, by influencing the meanings that boys and girls attach to their exercises. If boys are more concerned with competing and showing off their skills, while girls focus more on a healthy, slim and attractive body (Stewart et al. 2013), we expect more boys engaged in club sports and girls in fitness activities as these exercise contexts refer to distinctive logics and motives.

For the transition from association sport clubs to fitness gyms, we make use of habitus as group-specific socialization among individuals who have organized sport experience in common. In the specific context of distinctive social environments, socialization produces particular ways of thinking and acting (habitual dividing lines) between those included in the very contexts and those excluded. Long-standing participation in organized sports can help develop preferences (habitus) and knowledge (capital) that increase the likelihood of remaining physically active when opting out of clubs.

## **Methods**

We use data from a representative survey among Norwegian youth in secondary school and upper secondary school (*The Norwegian Youth Survey 2017-2018*)<sup>1</sup>. This large study is ongoing and covers many themes, including social background, family relations, leisure, opinions and attitudes, mental health, physical exercise and so on. Our data comprise a subset

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<sup>1</sup> <http://www.ungdata.no/English>

of two years from this larger study that contains cross-sectional data. The online survey is administered in school, and respondents have 45 minutes to complete it. The data for 2017-2019 have been obtained from 259,700 young people (approximately 87,000 participants each year). The response rates are 87% in secondary school and 73% in upper secondary school. These refers to approximately 80% of all secondary school pupils and 60% of all pupils in upper secondary school in Norway. Our sample consists of 177,464 pupils with valid responses, from secondary school classes 8 to 10 (13-15 years old) and upper secondary school classes 1 to 3 (16-18 years old). Boys have a higher percentage of missing or incomplete responses than girls (8% versus 5%). Otherwise, there are no systematic biases in the responses (Table 1). The ethical aspects of the study were approved by the Norwegian Social Science Data Services. Parents and pupils were informed in advance about the purpose of the study, and participation was voluntary.

Since 78% of those pupils starting upper secondary school will graduate within five years (Statistics Norway 2020), our data consist of the vast majority of the Norwegian youth population in the age range covered by our data. The results can to some extent be generalized to other western countries. This has to do with the high participation levels in organized youth sports in large parts of the western world, and the relatively small socioeconomic diversity (equality of income and education) especially in Northern Europe (Green et al. 2015).

We apply three measures of physical activities. The respondents were asked; how often do you exercise or take part in the following activities? We use three of the alternatives given to them: 1) exercise or compete in a sport club, 2) exercise in a fitness gym and 3) exercise on your own. The six possible responses are never, seldom, monthly, once or twice a week, three times a week and five times a week or more. These variables form the core of our study (Table 2). For most analyses, we use a dichotomous variable where we distinguish between those exercising once or twice a week or more (1) and all others (0).

The three exercise contexts are studied at a general level. Ideally, we would have preferred to cover specificities in each arena. Club sports especially cover a large variety of activities with vast internal differences (Oslo Economics 2020), but ‘fitness cultures’ are also more manifold than previously (Steen-Johnsen and Kirkegaard 2010). Our last category, self-organized exercise, also covers a wide spectrum of activities, including jogging, cycling, swimming, climbing and more spontaneous (lifestyle) sports. This is a limitation of our description of the cultural differences between organized sport and commercial fitness.

For the social background, we first use gender and school class (which is closely related to age). Next, we apply the Family Affluence Scale (FAS II) (Currie et al. 2008) and cultural capital as the bases for our socioeconomic status measure. FAS II consists of an average score (0-3) based on three questions: (1) Does your family have a car? (2) Do you have your own bedroom? (3) How many times have you travelled somewhere on vacation with your family over the past year? FAS II shows high interrater agreement between children and parents, as well as satisfactory validity, and correlates (as expected) with a wide range of health behaviours, including physical activity (Andersen et al. 2008; Currie et al. 2008). Cultural capital is measured by asking the following questions: (1) How many of your parents have higher education (0-2)? (2) How many books would you say there are in your home (1 metre of a bookshelf approximately equals 50 books), on a 0-5 scale (from 0 = no books to 5 = more than 1000 books)? The cultural capital measures have been satisfactorily validated against school grades (Andersen and Bakken 2019). According to the responses to the three measures of socioeconomic status, we have created a composite measure on a scale from 1 = 20% lowest scores to 5 = 20% highest scores (cumulative divisioning).

	<u>N</u>	<u>%</u>
Gender		
Male	85,080	50.0

Female	84,791	50.0
Age/school class		
8 <sup>th</sup> (12-13 years)	34,560	19.9
9 <sup>th</sup> (13-14 years)	33,298	19.2
10 <sup>th</sup> (14-15 years)	32,508	18.8
1 (15-16 years)	32,106	18.5
2 (16-17 years)	24,013	13.6
3 (17-18 years)	16,834	9.7
Socioeconomic status (ses)		
Ses 1	38,785	21.9
Ses 2	32,221	18.2
Ses 3	41,039	23.2
Ses 4	32,504	18.4
Ses 5	32,459	18.3

Table 1. Descriptive statistics of gender, age/school class (13-18 years old) and socioeconomic status.

To capture experiences in club sports, we asked this retrospective question: Have you ever participated in organized sports? (1) No (2) Yes, but quitted in primary school (3) Yes, but quitted in secondary school (4) Yes, but quitted in upper secondary school (5) Yes, and I still participate. The question asked (and the answers given) for this topic differs between those still in secondary school and those in upper secondary school, since the latter group has a greater time span of club sport dropouts (their temporal view is different) (Table 4).

We apply two statistical methods: simple frequency distributions (univariate and bivariate) and multiple logistic regressions. Since the output of logistic regressions is difficult to interpret directly, based only on coefficients (Mood 2010), we have chosen to illustrate some of the most interesting findings in figures, where we show how predicted probabilities of exercise depend on the social background. These illustrations are also useful because of our very large dataset where the statistical significance ( $p$ ) is not very informative. We illustrate the effects by calculating predicted probabilities. R (version 3.6.1), an open source software, is used to analyze data and graphics (R Core Team 2018).

## Results

Starting with the exercise patterns (dichotomous variables, two bottom lines; Table 2), we find that sport clubs (43.5%) and self-organized exercise (43.9) have the highest participation rates, ten percentage points higher than fitness exercise (34.0). Looking at the more detailed numbers, we find that members of sport clubs have the most intense exercise habits (three times a week or more with 31.3% versus self-exercise with 18.9%, and fitness with 18.0% at this level). In the opposite direction, the self-exercisers are more active at lower frequency levels. Self-exercise also has the lowest non-participation (never exercise) level (19.6).

Table 2. Overview of exercise levels in various arenas. Percentages. On top: continuous variables. Between lines: dichotomous variables.

	<u>Fitness</u>	<u>Club sport</u>	<u>Self-exercise</u>
Never	44.4	46.3	19.6
Seldom	15.4	7.3	18.4
Monthly	6.3	2.9	18.1
1-2 times per week	15.9	12.2	25.0
At least 3 times per week	12.9	18.4	11.6
5 times per week or more	5.1	12.9	7.3
Monthly or less	66.0	56.6	56.1
1-2 times per week or more	34.0	43.5	43.9
N	163,966	164,987	164,841

How do exercise patterns change by age (Figure 1)? Starting with fitness, we find a huge increase within the age range covered by our data, where the proportion participating has more than tripled, from 15% to 50%, with the greatest increase between classes 9 and 10 (14-15 years old, from 23% to 39%). Almost the mirror image of this increase, club sport participation has decreased from 61% to 23%, with the period from class 10 to the entry to upper secondary school (15-16 years, from 45% to 34%) as the critical phase in terms of dropouts. Both the proportion of those exercising on their own and the overall exercise rate (any arena) are more evenly distributed by age, having a small decrease.

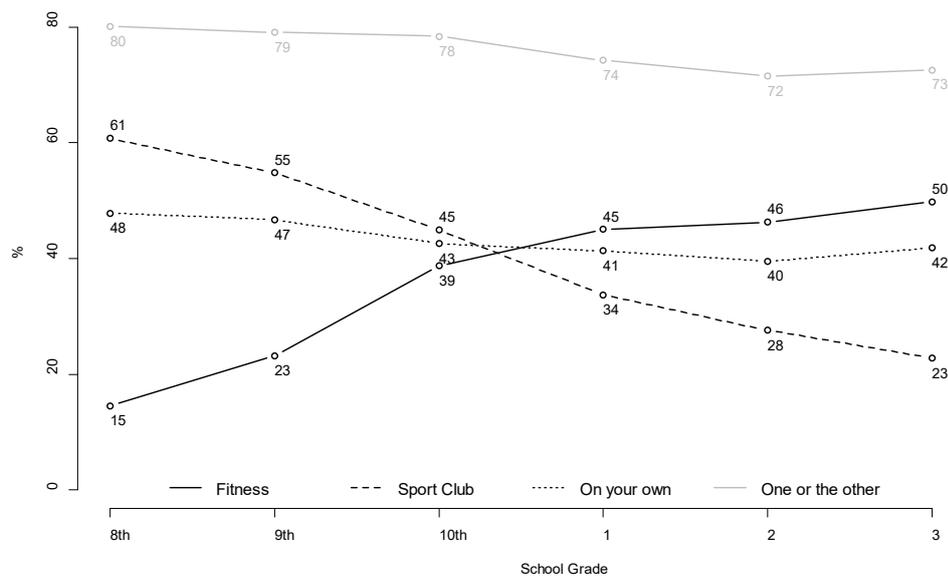


Figure 1. Exercise in fitness gyms, sport clubs and self-exercise by age/school class (13-18 years old). Dichotomous variables: 1-2 times a week or more versus less than weekly.

For exercise levels in different arenas by gender and socioeconomic status, Table 3 reveals slightly more girls than boys engaged in fitness activities (36.2% versus 31.4%) and more boys involved in club sports (47.6 versus 39.2). Gender differences for self-exercise and the overall exercise level are not evident. Regarding socioeconomic status, the differences for fitness appear much lower (35.9 versus 30.4) than for organized sports (56.2 versus 30.1), whereas self-exercise (50.1 versus 37.1) shows greater socioeconomic differences than fitness. Overall (any arena), there are systematic socioeconomic differences (85.6 versus 65.0). The effects of gender and socioeconomic status for fitness and club sports are also shown in the multiple analyses (Table 5 and Table A1 in the appendix).

Table 3. Exercise in various arenas by gender and socioeconomic status (ses). Percentages. Dichotomous variables: 1-2 times a week or more versus less than weekly.

	Fitness	Sports	Self-exercise	Any arena
Boys	31.4	47.6	43.5	76.0
Girls	36.2	39.2	44.1	75.0
Ses 1	30.4	30.1	37.1	65.0

Ses 2	32.9	36.0	41.6	72.5
Ses 3	35.1	44.8	44.1	78.0
Ses 4	35.7	51.5	46.8	82.9
Ses 5	35.9	56.2	50.1	85.6

For a better understanding of the relations between fitness and club sports, we study how many youths have never participated in organized sports, how many ended their participation in primary school, secondary school and upper secondary school, respectively, and how many still participate (Table 4). 6.6% in secondary school (13-15 years) and 8.5% in upper secondary school (16-18 years) of the population, have never taken part in organized sports. Approximately 55.6% of the secondary school pupils (remember that they are spread across all classes) still participate, while the corresponding number in upper secondary school is about halved (30.1%). Approximately 18% (20.0% in secondary school and 15.7% in upper secondary school) withdraw from sports during primary school, while the proportion opting out of sports in secondary school is (unsurprisingly) greater in the upper secondary school cohort than among secondary school pupils (29.7% versus 17.8%).

Table 4. Sport club participation by time. For those who are ‘no longer active’: when did they end their participation (if ever)? Percentages.

	<u>Secondary school</u>	<u>Upper secondary</u>
Never	6.6	8.5
Ended in primary school	20.0	15.7
Ended in secondary school	17.8	29.7
Ended in upper secondary school	-	16.0
Still active	55.6	30.1
N	110,231	689,90

To study how the variables (that we have discussed so far) together influence fitness exercise, we run two multiple logistic regression models: one for those in secondary school

and the other for those in upper secondary school (Table 5). We use two models because the variable measuring previous sport club participation contains one more value (ended club sports in upper secondary school) for upper secondary school pupils, as well as to determine how the effects of the other variables in our models vary between the two age groups (interaction between age and all independent variables). We have included two figures (Figures 2 and 3) showing the predicted values (probabilities) for a selection of respondents.

Table 5. Fitness exercise 1-2 times a week or more versus less than weekly. Logistic regression.

Secondary school.

	<u>Coef</u>	<u>SE</u>	<u>OR</u>	<u>p</u>
Intercept	-3.10	0.05	0.05	0.00
Female	0.30	0.02	1.26	0.00
Age/school class (8-10)	0.64	0.01	1.89	0.00
Socioeconomic status (1-5)	0.05	0.01	1.05	0.00
Ended sports primary school (Never participated in sport)	0.54	0.04	1.72	0.00
Ended sports secondary school	1.10	0.04	2.99	0.00
Still member of club sports	0.69	0.04	1.99	0.00
<i>Deviance</i>	<i>94658</i>			
<i>McFadden</i>	<i>0.06</i>			
<i>Nagelkerke</i>	<i>0.10</i>			
<i>N</i>	<i>89,273</i>			

Upper secondary school.

	<u>Coef</u>	<u>SE</u>	<u>OR</u>	<u>p</u>
Intercept	-1.35	0.06	0.26	0.00
Female	0.19	0.02	1.17	0.00
Age/school class (1-3)	0.08	0.01	1.08	0.00
Socioeconomic status (1-5)	0.10	0.01	1.10	0.00
Ended sports primary school (Never participated in sport)	0.25	0.04	1.28	0.00
Ended sports secondary school	0.80	0.03	2.23	0.00
Ended sports upper secondary	1.21	0.04	3.35	0.00
Still member of club sports	0.93	0.03	2.53	0.00
<i>Deviance</i>	<i>85112</i>			
<i>McFadden</i>	<i>0.03</i>			
<i>Nagelkerke</i>	<i>0.06</i>			
<i>N</i>	<i>63,630</i>			

Girls tend to take part in fitness exercise more often than boys, in both secondary school and upper secondary school (Table 5). For age (school class), comparing Figure 3a with 3c and 3b with 3d shows that the likelihood of fitness exercise is much higher in upper secondary school (Figure 3c-d) than in secondary school (Figure 3a-b). In each school group (secondary school and upper secondary school), there is a positive effect (those older in each group are more prone to engage in fitness exercise than the younger ones) (Table 5), but the odds ratios (OR) reveal that this age effect is greater in the younger group. In secondary school, the increase in fitness activity by age (OR = 1.89) is greater than in upper secondary school (OR = 1.08). The higher the socioeconomic status, the greater the likelihood of fitness participation (Table 5). As shown in Figure 2 (where we isolate the effect of socioeconomic status), the effect of socioeconomic status is evident (upward lines) in all groups but somewhat higher (a steeper line) among upper secondary school pupils.

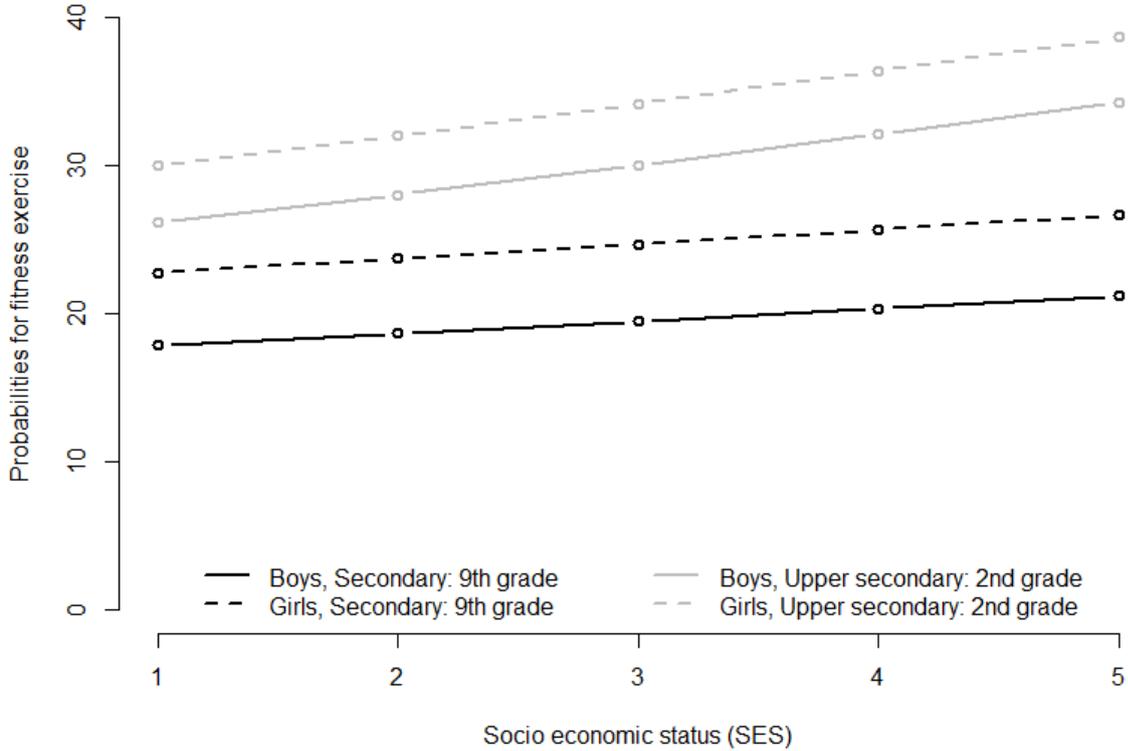
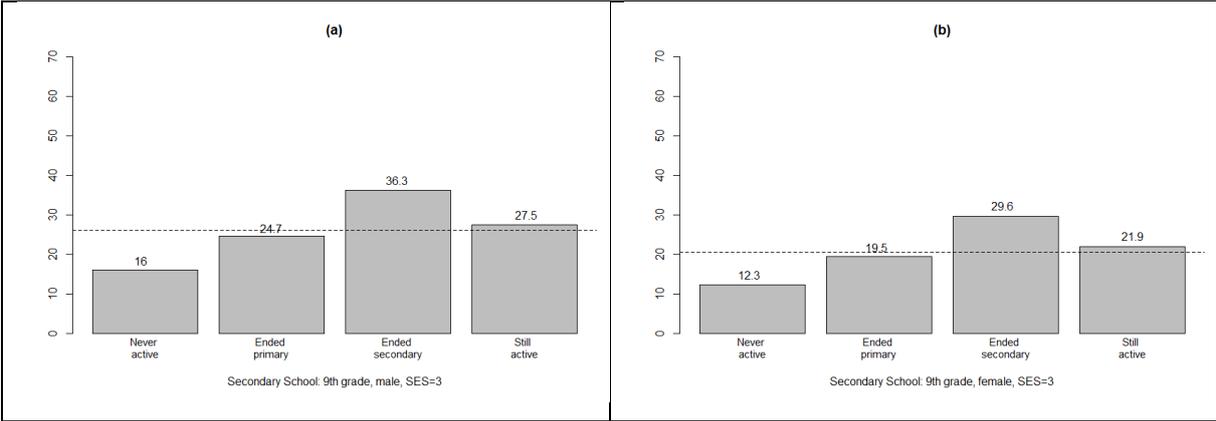


Figure 2. Predicted probabilities for fitness exercise (1-2 times a week or more versus less

than weekly) by socioeconomic status (all ended club sports in primary school: 6-12 years). Results from the regression analyses (Table 5).

A vital question for our study is how (previous) club sport participation matters for present fitness exercise. The first and general finding for all age groups is that having participated or still participating in club sports increases the likelihood of fitness participation (compared with those who have never participated) (Table 5 and Figure 3). It is also true that the more recent the dropout from organized sports, the higher the likelihood of being active in fitness exercise (steadily increasing probabilities between the groups with club sport experience; Figure 3). This also applies to self-exercise; the longer (more consecutive years of sport practice) the organized sport participation before dropout, the higher the likelihood of present exercise (Table A2 in the appendix). The effect of (previous) club sport participation on the present fitness exercise and self-exercise level applies especially to boys (having overall higher probabilities than girls; Figure 3).



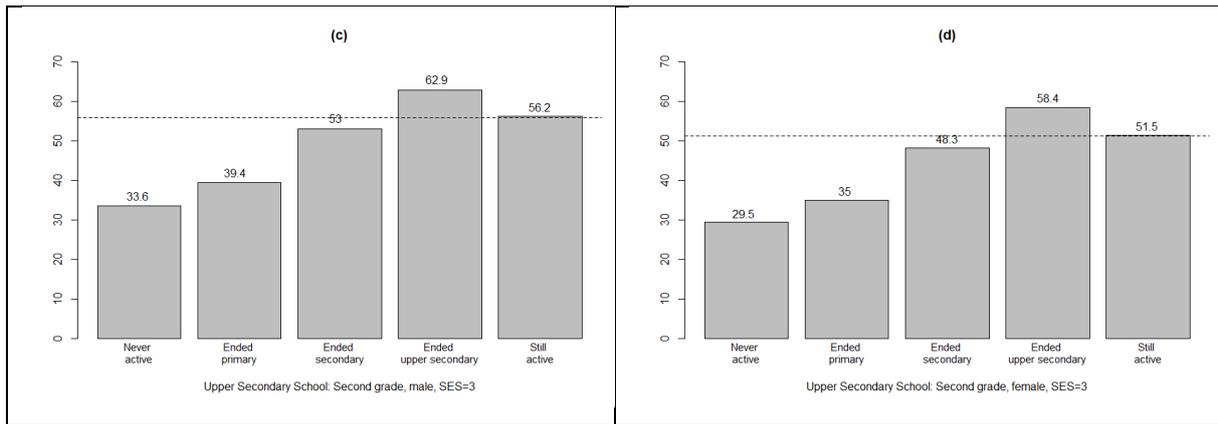


Figure 3a-d. Predicted probabilities of taking part in fitness exercise (1-2 times a week or more versus less than weekly) in various social groups by previous and present club sport participation. Results from the regression analyses (Table 5). Dotted lines: percentage population of fitness exercisers in each group.

## Discussion

While more than three out of ten engage in fitness exercise, more than four out of ten Norwegian youth in secondary and upper secondary schools (13-18-year-old students on average) participate in club sports 1-2 times per week or more. Only 7% of Norwegian youth in this age range have never taken part in organized sports, something also proven in studies drawing on partly older data (Bakken 2019). Such a participation level is unique in the European context (Breuer et al. 2017). Our findings also reveal that the typical club sport participant exercises a great deal (several times a week), while the tendency to exercise rarely (weekly, monthly or seldom) is more common among fitness participants. One of many possible explanations for this finding is the professionalization of many Norwegian club sports that especially target the youth from the age of 13, leading many of them to expect plenty of exercise and competition (in contrast to children's sports). Those who are not attracted to the accelerating logic of competition, achievement and the constant quest for improvement in many organized youth sports – and who may (for that reason) exercise in other ways than in the context of club sports – may have a desire (habitus) for less (binding) workouts, resulting in decreased exercise levels after sport dropout.

Participation levels by age reveal (as expected) different exercise patterns between club-organized sports and fitness gyms during the teen years. The proportion participating in fitness exercise has more than tripled in the age range of our data. The mirror image of this increase is found in club sports. The pattern of an increasing number of youths participating in fitness exercise by age is probably partly due to the changes in the availability of gyms in adolescence (because of gyms' age limits) and partly because organized sports for older youth are more discriminating in their pursuit of talent and therefore more exclusive in nature. Although Scandinavian club sports are considered more socially inclusive compared with other countries, the tension between elite and grassroots sports still exists, reinforced by professionalization (Bergsgard and Norberg 2010; Skille 2015). Therefore, for many young Norwegians, the fitness arena could appear more inclusive than club sports and – to a greater degree than sports – an arena for realizing the modern dream of a fit, healthy and attractive body to present to others (Maguire 2007).

Although there appears to be a shift in exercise arenas during adolescence – from club sports to fitness exercise – our results reveal a stable overall proportion of physically active youth (exercise in any arena). This finding implies that the huge increase in fitness exercise to some extent compensates for the dropouts from club sports (at the overall physical activity level). As our results of exercise frequencies reveal that fitness participants tend to exercise more rarely than those engaged in club sports, gyms probably play a more modest role in compensating for the decrease in physical activity levels gained through clubs.

Because boys' exercise motives are said to be more oriented to competition, while girls' motives are more oriented to bodily outcomes (Stewart et al. 2013), we expected boys' habitual exercise preferences to be a better match to the competitive-oriented and community-based club sport logic, whereas girls' motives were predicted to be more aligned with the body- and intrinsic health-focused fitness arena. Therefore, Sassatelli's (2003, 77) description

of fitness as an arena for '*bridging health and beauty*' is probably a more attractive choice for girls in general. The gender differences in our results can be interpreted through Bourdieu's (1984) notion of habitual differences embodied in gendered exercise motives as gendered habitus. Like social class, gender can also mediate both the access to and the experience of participation in various social fields as it creates different obstacles and opportunities (Bourdieu 2001).

Studies reporting trends of individualization as the widespread reason for withdrawing from organized sports (i.e., the reluctance to compete and to commit to regular exercise schedules, which is more prevalent among girls) add to such an explanation (Ødegård et al. 2016). In other words, since competition is a more dominant aspect of boys' exercise habitus, while health is more prevalent in girls' habitus, unsurprisingly, a higher proportion of boys is engaged in club sports and a higher percentage of girls is involved in fitness because rivalry is a characteristic of competitive sports, whereas commercial fitness is characterized by the focus on health/the body (Seippel 2016). Our findings reflect more feminine values in gyms and the apparently more prominent masculine values in clubs.

A correlation between socioeconomic status and exercise patterns was expected. We find that the socioeconomic impact is evenly distributed; the higher the socioeconomic status, the higher the fitness participation rates. This also applies to club sports and self-exercise. The greater socioeconomic differences in club sports than in gyms stand out as a key finding. Fitness participation, which demands a certain ability to pay, is even less classed than self-exercise (potentially free), implying that fitness is not much limited by family resources.

It is difficult to generalize which arena (fitness or sport) is more expensive (in financial terms) because both are diverse in costs, varying in the facilities provided, type of activity, individual ambitions, geographical location, and the individual's financial situation, needs and motives. According to a Norwegian study on 13 club sport activities among 9- and

15-year-old youths, the average total annual costs of sport practice in an association sport context – including membership and training fees in clubs, national federation’s license, costs related to personal equipment and events, in addition to events covered by the membership – are NOK 3,600 for 9-year-olds and NOK 9,600 for 15-year-old participants (Oslo Economics 2020). These costs are higher than those found in Denmark. For Norwegian fitness participation, we know of no systematic analysis of the costs. In Denmark, it is slightly more expensive to be active in commercial fitness (more than 3,000 DKK in median expenditure per year) than in club sports (Sports Confederation of Denmark [DIF] 2015).

The higher costs among 15-year-old than 9-year-old participants are caused by three key factors (cost drivers): 1) higher amounts of exercise (including competitions outside the local community), 2) professionalization processes (paid coaches and administrative staff in the club), and 3) costs for sport facilities. There is less research on the extent to which the costs related to organized youth sport participation serve as an exclusionary mechanism (Oslo Economics 2020). Ødegård et al. (2016) report that club sports being too expensive is one of the least important reasons why the youth state that they do not participate in organized sports. Statistics Norway (2015) estimates that exclusion from organized leisure activities (including club sports), because of poor family finances, only applies to 2% of Norwegian families with children until the age of 15 years.

The costs of fitness are probably more predictable than in organized sports because there are no extra costs needed (personal training and so on is not included in the membership fee), such as travelling (competitions and tournaments) and training camps. The less distinct and more multidimensional cultural logic of fitness, compared with that of club sports, is also relevant. From a Bourdieusian perspective, the field of fitness is less structured by capital and habituses than club sports, making it less classed, while club sports presuppose specific habitual preferences (the quest for competition, winning and more striving for continuous

improvement). While fitness exercise requires regular payment, club sports require a more diversified set of resources (economically, culturally and socially: more structured schedule, more equipment, more knowledge and more social skills). Clubs have a more demanding culture code for members than gyms, placing greater demands on embodied knowledge implemented in the habitus, in addition to youth sports requiring more intensive parental involvement (which is said to be classed [Stuij 2015]).

As the professionalization, commercialization and overall modernization of association sports have seriously challenged the clubs' inclusiveness (Peterson 2008), commercial fitness is probably more easily accessible for people with a lower socioeconomic status and those unfamiliar with traditional voluntary sports. The reason why the socioeconomic impact on fitness is greater for pupils in upper secondary school than those in secondary school, could be that most gyms tend to charge lower membership fees for the youngest teenagers as a recruitment strategy.

As revealed in our results that the socioeconomic impact is much higher on the club sport participation of upper secondary school pupils than of those in secondary school, organized sports could also be expected to demand higher costs by age, due to more competitions and more frequent travels to tournaments outside the local community as participants become older. In general, the more consequential socioeconomic impact on organized sports results in some huge overall (any arena) socioeconomic differences in youth exercise.

### *Transitions in youth sports: from clubs to gyms*

One of the topics at the heart of the political debate about youth sports, also in the Norwegian context, is whether organized sport participation in childhood and adolescence leads to physical activity and healthy lifestyles later in life (Skille and Solbakken 2011; Telama 2009).

A clear pattern is revealed in our results. The longer (more long-lasting) the organized sport participation before dropout, the greater is the likelihood of present fitness gym participation and self-exercise. Those most likely to engage in fitness exercise are the youth who recently dropped out of organized sports, followed by those who still participate in clubs and those who ended organized sports in primary school, respectively. Those who have never participated in associated sports are the ones least likely to engage in fitness exercise. It is the recent ending of participation in organized sports that best predicts present fitness participation. This result is in line with a study finding that the more recent the dropouts from club sports, the more the teenagers plan to resume physical exercise (Gatouillat et al. 2019).

Our results support two common assumptions. On one hand, fitness is complementary venues to club sports; many of the previous club sport exercisers move on to fitness. On the other hand, sport clubs compete against fitness gyms because the exercise levels in gyms among those still active in club sports are lower than among those who have recently left organized sports. It is not surprising that those who recently ended their participation in club sports are more likely to engage in fitness exercise than those still active in sports. For instance, there is an extensive and accelerating ‘seriousness’ throughout many organized youth sports, which entails demands for more frequent exercise and competition, as well as sports results becomes of greater importance (Coakley and Pike 2009). Therefore, those who choose to stay in club sports during their teens are often very active (high exercise frequencies) in doing so (as seen in our results) and thus have less time to (or need for) exercise in other organizational contexts. Like the link between fitness participation and club sport background, we also find this evident link for the relationship between self-exercise and association sport experience, implying that organized sport involvement is socialized to exercise in general (not just commercial fitness).

For our result that organized sport participation, and continued participation in particular, increases the likelihood of regular fitness exercise at present, we argue that Bourdieu's (1984) concept of habitus is a relevant perspective. We think that club sport participation brings some cultural resources (capitals) that make fitness exercise more easily accessible, more attractive and in the end, more likely. These types of capital accumulated from club sports become more numerous and more embodied (internalized) the more persistent (consistent) the organized sport participation becomes. Continued club sport participation, at least participation for a certain period (some consecutive years), influences a person's culturally inherited and embodied exercise values, preferences, tastes, motives, ways of thinking of and relating to the body (the embodiment of knowledges such as taking care of and maintaining one's body and health), and so on, included in the habitus.

We think that organized sport participation helps underpin young people's propensities for regular exercise and healthy lifestyles. In other words, club sport participation influences the 'fitness habitus' (quest for fitness exercise and physical health in general) through years of exposed club sport socialization. Over time, this socialization will become an integrated and natural part of the habitus: a person's mental scheme, and ways of thinking and acting. Similar arguments about a certain '*habitual physical activity*' (Telama 2009, 187) have been made in studies revealing a positive link between youth sport participation and physical activity in adulthood (Kjønniksen et al. 2009). Telama et al. (2006, 86) state, '*Our main hypothesis is that regular, persistent physical activity and sport participation increases psychological, social, and physical readiness for physical activity in later life*'.

The process of internalizing habitual dispositions towards fitness through years of youth sport exercise probably turns out in many interconnected and various ways. We believe that sports provide dispositions that continuously (re)construct an individual's preferences for physical activity and exercise. For instance, the knowledge of exercise in general and its

cultural codes, such as knowledge of what a healthy lifestyle, a fit body and regular exercise commitment entail, as well as embodied knowledge of the many possible positive outcomes of regular exercise (physically, mentally, recreationally, socially, etc.), could have an impact on fitness participation. These forms of knowledge gained from club sports can be embedded in the subconsciousness as a certain health-oriented habitus that makes someone keep exercising when one no longer participates in organized sports. Such embodied dimensions of cultural capital accumulated through club sport participation simplifies the entry into the field of fitness. Youths who have never taken part in organized sports or only for a short period of time might lack this fitness habitus, making the transition to the fitness field and a physically active lifestyle more difficult or even not wanted (preferred) in the first place.

In this way, we could speculate that the cultural upbringing in the context of organized sports influences the cultural attraction to fitness (and self-exercise) as the benefit of exercising and a certain bodily capital (know-how), which is habitually embodied through several years of club sport experience. We believe that sports are socialized to fitness because sport participation over a certain period helps form the fitness habitus. If club sport participation brings such an effect, it would favour the role of organized youth sports working as intended by sport policymakers, at least from a short-term perspective. A vital reason for the legitimacy of many western states' funding of club sports, through the national state budget – beyond the role of sports in fostering public health and more immediate social integration through the (re)production of social capital – is the belief that participation will promote physical activity and healthy habits even later in life (long-term effects) (Coakley and Pike 2009; Norwegian Whitepaper 2012). Our results are at least very clear on this topic.

There are some limitations to this explanation. We have not checked when the respondents *started* club sports. For instance, some both start and quit organized sports during upper secondary school and consequently have not been 'sport socialized' for the period that

we assume. It is possible that the effects of participating in organized sports at 5-6 years of age (in this context) differ from the effects at 17-18 years because of cognitive development. We cannot ignore the possibility of our results being caused by an effect of age rather than of club sport experience. Those engaged in individual sports (more like fitness in form) may have developed partly different habituses than those involved in team sports. Neither can we ignore that the possibility of the link between club experience and present fitness and self-exercise is related to the fact that those who are physically active in general in childhood (not only in organized sports) are more likely to be physically active in their teens. Research suggests that being physically active throughout adolescence, and not necessarily in the organized sport context, is important for the exercise levels in adulthood (Wichstrøm et al. 2013).

Our results may also be caused by a self-selection process. Those likely to participate in organized sports for several years may have some characteristics in common (higher socioeconomic status, access to better coaches and equipment, more knowledge and parental involvement, etc.), making them likely to be physically active even after dropout. In other words, it is possible that socialization and experiences from club participation are not the key factors, but socialization with family and friends comes into play. If so, socialization through years of youth sports does not explain the correlation between club sport experience and fitness; rather, the characteristics of the sport participants in the first place explain it. For instance, there is substantial evidence of a positive gradient of increasing physical activity and sport participation levels across the socioeconomic strata (Gidlow et al. 2006). Taking the highly class-bound sport habitus of Bourdieu (1984) into account, it can be argued that at least some of the explanation for the link between club sport experience and present exercise in our results can be caused by underlying (social, cultural and symbolic) social class patterns.

## **Conclusion**

In this paper, we have delved into participation in Norwegian youth sports and the transition from sport clubs to fitness gyms during adolescence. We have studied this topic against the backdrop of the increasing popularity of fitness and the more pressing forces of social inequality in the western world (Andreasson and Johansson 2018; Piketty and Goldhammer 2014). Social inequality and its implications for youth exercise, the popularity of fitness as a result of characteristics of late modern societies (such as individualization), and the role of club sport experience in present youth exercise are at the heart of the study. Two findings stand out: the influence of socioeconomic status is greater in organized sports than in fitness, and the overall tendency is that club sports socialize to (prepare for) later exercise. Drawing on a Bourdieusian habitus approach of capital building through club sport participation, we assume that what a person learns from several years of club sport involvement – incorporated through the habitus – can be transferred to the fitness arena and that these forms of cultural capital are useful for maintaining exercise patterns when leaving organized sports in the early teens.

An implication of the impact of organized sport experience on post-club sport exercise levels, is that never having participated in organized sports (in the sporting context, being an outsider throughout adolescence) is more worrisome from a public health perspective than dropout. It is not true that those who have never been involved in youth sports suddenly find out that commercial fitness is their arena and then start exercising in gyms or self-training. From a health perspective, it is important to ensure that as many as possible youth sport participants are provided with great experiences, making them embody the benefits of exercise and good health, which is a predictor of exercise in the late teens.

Moving through the ‘who are you’ stage of the ‘where do you come from’ question, we have gained new insights into the role of club sports and commercial fitness in the lives of

young Norwegians, who are not too different from other young westerners. More research is needed for a better understanding of this topic, especially our suggestion of organized sport fostering future exercise, and the extent to which an overlap may occur between club sport and fitness participation in the teen years. Longitudinal designs would be of special interest as those ending their club sport participation can be inactive for a given period.

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## Appendix

Table A1. Club sports exercise 1-2 times a week or more versus less than weekly. Logistic regression.

Secondary school.

	Coef	SE	OR	p
Intercept	-2.26	0.06	0.10	0.00
Female	-0.29	0.02	0.75	0.00
Age/school class (8-10)	-0.12	0.01	0.88	0.00
Socioeconomic status (1-5)	0.10	0.01	1.10	0.00
Ended sports primary school (Never participated in sport)	-0.19	0.06	0.82	0.00
Ended sports secondary school	0.12	0.06	1.13	0.04
Still member of sports club	4.54	0.05	93.27	0.00
<i>Deviance</i>	55064.45			
<i>McFadden</i>	0.56			
<i>Nagelkerke</i>	0.72			
<i>N</i>	90,012			

Upper secondary school.

	Coef	SE	OR	p
Intercept	-1.65	0.11	0.19	0.00
Female	-0.37	0.03	0.69	0.00
Age/school class (1-3)	-0.24	0.02	0.79	0.00
Socioeconomic status (1-5)	0.57	0.08	1.43	0.00
Ended sports primary school (Never participated in sport)	-0.57	0.08	0.57	0.00
Ended sports secondary school	-0.37	0.07	0.69	0.04
Ended sports upper secondary	0.36	0.07	1.43	0.00
Still member of sports club	4.57	0.07	96.27	0.00
<i>Deviance</i>	32401.63			
<i>McFadden</i>	0.58			
<i>Nagelkerke</i>	0.72			
<i>N</i>	63,801			

Table A2. Self-exercise 1-2 times a week or more versus less than weekly. Logistic regression.

Table A2. Self-exercise 1-2 times a week or more versus less than weekly. Logistic regression.

Secondary school.

	Coef	SE	OR	p
Intercept	-0.51	0.03	0.60	0.00
Female	-0.08	0.01	0.92	0.00
Age/school class (8-10)	-0.10	0.01	0.90	0.00
Socioeconomic status (1-5)	0.10	0.01	1.11	0.00
Ended sports primary school				

(Never participated in sport)	0.26	0.03	1.30	0.00
Ended sports secondary school	0.48	0.03	1.62	0.00
Still member of sports club	0.41	0.03	1.51	0.00
<i>Deviance</i>	122865.36			
<i>McFadden</i>	0.01			
<i>Nagelkerke</i>	0.02			
<i>N</i>	89,927			

Upper secondary school.

	<u>Coef</u>	<u>SE</u>	<u>OR</u>	<u>p</u>
Intercept	-1.00	0.06	0.37	0.00
Female	0.21	0.02	1.23	0.00
Age/school class (1-3)	-0.01	0.01	0.99	0.49
Socioeconomic status (1-5)	0.11	0.01	1.11	0.00
Ended sports primary school	0.08	0.04	1.08	0.03
(Never participated in sport)				
Ended sports secondary school	0.28	0.03	1.32	0.00
Ended sports upper secondary	0.51	0.04	1.66	0.00
Still member of sports club	0.58	0.03	1.78	0.00
<i>Deviance</i>	85004.97			
<i>McFadden</i>	0.02			
<i>Nagelkerke</i>	0.03			
<i>N</i>	63,850			