TRUDEAU, FRANÇOIS

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Factors in Adopting Long-term Athlete Development

Project Summary

Purpose: Several studies have reported an age-related decline of physical activity (PA). We examined the impact of four transitional periods—adolescence, the beginning of post-secondary education, entry into the labour market, and parenthood—on the PA of participants in the Trois-Rivières quasi-experimental study. The objective of this project was to identify the contribution of each of these periods to the lifespan decrease of physical activity. A second objective was to verify if a quality daily physical education program could change the impact of these transitional periods.

Findings: These results add to the body of evidence indicating a non-linear age-related decline in PA levels from adolescence to midlife. In our sample, the proportion of "very active" participants (i.e. over 5 hours of PA per week) dropped from 70.4 to 17.0%. A more dramatic decrease was seen on entering the labour market, when the percentage of "very active" participants fell from 55.9 to 23.4%. Moreover, by the age of around 44 years, our experimental subjects (who had 5 hours of physical education per week during childhood) showed no benefit from their PA in adulthood. We conclude that initiatives aimed at further maintaining PA may be warranted during these important transition periods.

Research Methods

A total of 44 women and 42 men aged 44.0 ± 1.2 years were given a semi-structured interview; the frequency and duration of physical activities were examined during each of these transition periods. The subjects had been participants in either an experimental program (5 hours of weekly physical education (PE)) or the standard curriculum (40 minutes of weekly PE) from Grades 1 to 6. The interviews allowed a more in-depth examination of the events that occurred during the transition periods that could have been associated with a modification in PA behaviours. Our sample size also ensures the saturation of data, which, in qualitative studies, determines the point where the addition of new data no longer adds to comprehension of the phenomenon. Furthermore, the control process adopted when analyzing the interviews contributes to the credibility of our analyses.

Research Results

The proportion of "very active" participants decreased by almost 75% between secondary school and the arrival of children. Concomitantly, there was an almost tenfold increase in the prevalence of physical inactivity. According to earlier reports, the decline in PA was not linear; the biggest
negative factor was entry into the labour market, when the percentage of "very active" individuals dropped from 55.9 to 23.4%. The influence of each transition is discussed further below.

Transition from primary to secondary school. Although it is difficult to disentangle the respective influences of a change in education system and the onset of puberty, in our investigation over 85% of participants claimed that they were still "sufficiently active" during adolescence. However, many of them had only vague memories of their childhood behaviours.

Beginning of post-secondary education. For those participants who went on to pursue post-secondary education, the percentage of inactive participants increased almost fourfold, while the proportion of "very active" individuals fell by about 15%. Other researchers have also observed a decline in PA during this transition. Many factors might be responsible. Firstly, for many students the need to combine work and academic studies greatly reduces the free time previously available for PA. Secondly, moving to another city for post-secondary studies is likely to reduce PA.

Entry into the labour market. In our study, this transition was associated with the most significant decline in PA. Many participants justified their reduced PA by citing a lack of time as a result of their work. Finally, several individuals reported logistic problems, including, for example, difficulty in getting access to a hockey arena at reasonable hours.

Parenthood. After the arrival of children, almost 25% of participants reported that they were inactive, and 60.1% did not meet the recommended PA level. Such rates are comparable to American data. Many participants suggested they lacked time to be active because of the need to take care of their children. Other researchers have also reported that parenthood is associated with a significant decrease in PA.

Impact of the experimental program on PA behaviour. In the previous follow-up of Trois-Rivières study participants, women from the experimental group were more active than controls when they were 35 years of age. However, our current results suggest that this advantage vanished over the following decade. Thus, it appears that exercise habits in childhood do not necessarily guarantee that individuals will maintain a high level of PA throughout adult life, even though several theoretical models have insisted on the importance of establishing the roots of an active lifestyle during childhood or adolescence. This finding is noteworthy given the importance of maintaining a high level of PA to prevent cardiovascular events, chronic diseases, cognitive impairments and all-cause mortality. The absence of significant differences in PA between the experimental and control groups could derive from many factors. Firstly, the experimental program ended upon entry to secondary school, which is known to be a critical period in the evolution of PA behaviours. However, in our study, the proportion of "very active" individuals during adolescence was still very high. Secondly, several studies have indicated that most adolescents do not compensate for the cessation of compulsory PE in the upper grades of high school by a spontaneous increase in their PA. Finally, early childhood interventions cannot be successful in influencing adulthood physical activity, if not supported by lifespan interventions to favour physical activity.

Policy Implications

Given the decrease in physical activity and sport participation during life transition periods, focus should be placed on individuals and their environment (workplace, post-secondary institution, etc.) throughout promotion campaigns.

Next Steps

Further research on how to prevent a decrease in physical activity and sport involvement during life transition periods is warranted.

Key Stakeholders and Benefits

- Provincial and federal health and education ministries and departments.
- Post-secondary education organizations.