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Dropout among French swimmers: gender, relative age effect and performance level influences

Difernand, A.

INSEP

INTRODUCTION:

Dropout can be seen as someone who had competed in one particular sport and stopped but has not completely stopped participating in sport in general . This study investigates the dropout rate among French swimmers according to performance levels, sex and relative age.

METHODS:

Using data from 160 861 swimmers under the age of 21, the distribution of birth quarters as well as the dropout rate by performance level is studied. Chi-squared statistical tests will be performed to attest to the significant effect of birth quarter variables on performance level. In addition, to determine and analyze the impact of sex and relative age on dropout, Kaplan Meier survival curves are realized.

RESULTS:

For female, the most likely age to dropout is 13 while for male, it is 17 years old. At these ages, there is a significant effect of birth quarters on performance levels: the proportion of first birth quarter increases with the level of performance. A significant effect of performance levels on dropout is also measured: dropout rate increases as the performance level decrease. The Kaplan Meier dropout curves as a function of age, with sex as a discriminant variable, show that the dropout trends for both sexes are similar before age 13. However, from this age onwards, the dropout rate increases more rapidly for females than for males, with a maximum difference (4.8%) at 17.89 years old. The maximum difference in dropout trends for swimmers born in the first and last quarters is 10% for females at 12.71 years and 8.1% for males at 14.67 years with the dropout rate increasing more rapidly for swimmers born in the last quarter.

CONCLUSION:

This study shows the importance of sex, relative age and performance level on the dropout of French swimmers. Female swimmers' present higher dropout rate than their males' counterparts. The highest dropout rate occurs during respective puberty. Dropout is potentiated by the level of performance.

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