## 28th ECSS Anniversary Congress, Paris/France, 4-7 July 2023

Determinants of performance in elite fencing: a Delphi study of foil, epee, and saber international level coaches.

Varesco, G.1, Hager, R.2, Doron, J.1, Jubeau, M.1

Nantes Université

## INTRODUCTION:

Fencing is an open-skilled combat sport present in the Olympics since 1896. Performance in fencing has been studied mostly from a physiological and technical perspective, but it also depends on tactical, psychological, and social factors. Thus, it is challenging to objectively investigate the main determinants of fencing performance at elite level. Qualitative research involving high-level fencing coaches could help to identify the key factors to perform at elite level. The aim of this study was to (1) understand the determinants of performance in fencing across the different weapons (foil, épée and saber) and (2) rank the extracted determinants from the most important to the less important.

METHODS:

Thirty-one experts who coached foil (n = 8), epee (n = 8), or saber (n= 16) at international level participated in a three-round online Delphi survey. Round 1 asked coaches to identify the determinants of performance in their respective weapon. Common or similar determinants were combined. Round 2 asked coaches to rate the importance of each determinant using a Likert scale (range: 0 = not important to 9= extremely important). Determinants reached a consensus if the score had an interquartile range 1. Round 3 was similar to Round 2, but presented solely the determinants that did not reach an agreement, plus an anchor for each determinant, that consisted of the mean value obtained in Round 2. RESULTS:

A total of 25 determinants of fencing performance for the foil, 24 for the epee, and 42 for the saber were reported in Round 1, of which 17, 11 and 39 reached consensus after Round 3 for the foil, epee and saber, respectively. Common determinants across the three disciplines were information scanning and processing, coordination capacity, the ability to repeat efforts at high intensity, good tactic and technique, the ability to surpass yourself, determination, motivation, the attraction for challenges, prophylaxis, injury prevention, and the quality of the entourage (e.g. family, friends). Specific to the disciplines, most of the coaches for the epee agreed mostly on physiological, technical and strategical qualities being determinants for performing well at elite level, while in foil and saber emotion regulation was also considered important.

These findings, despite being based on the coaches opinion, offer a base for future studies planning interventions to improve performance in fencing. Some applications can be talent identification and optimization of training practices. Moreover, these results might be useful the development of discipline-specific tests to monitor training in fencers.

Topic: Coaching

Presentation Oral

**European Database of Sport Science (EDSS)** 

24560