Manuscript: Sport in Society

Title: Factors influencing the development of elite-level sports officials in Australia: The AFL, ABA and FFA

Response to Reviewers: Manuscript FCSS-2016-0094 Note: We would like to thank the reviewer for very thoughtful feedback. We hope that our response is adequate, but should there be lingering issues, please let us know. Changes in the doc are indicated in blue highlighting.

Reviewer 1		Authors' Response
1	 You discuss the negative perceptions of officiating-does any data exist regards the number of official who leave the sport due to these reasons? Anecdotally, retention is a significant issue in officiating however is there any data to support this perception? 	 Introduction There is indeed research on negative perceptions and experiences in terms of officiating. That was an impetus for the present study, which takes a different approach, looking instead at reasons for entering officiating and staying in that role. The literature review in this paper discussed three major studies relevant to the negative side of officiating: Cuskelly and Hoye (2004) Cuskelly, Smith and Hoye (2009) Anshel and Weinberg (1996 and 1999)
2	Folkesson et al. (2002) discusses the circumstances pertaining to threat and aggression during soccer matches. Include this reference in the background literature.	Thanks for this suggestion. The source has now been included in the background literature (P2. Line 20) and added to the list of references.
3	 Methods Aims of the study were clearly conveyed P6L22-Fix Patton Reference Was the focus of the interview based around why they commenced officiating, or why they were still involved at a somewhat sub-elite (2nd tier) or elite (top tier) level? I gather that there would be a shift in the motivators for officiating. 	 Methods The needed change is P5, L22. Done ☺ Yes, the prime focus during interviews was why respondents started officiating. The initial motivators could be expanded – and consolidated – by program development initiatives in respective sports. Tables 3 and Table 4 illustrate original and ongoing motivators. A typical response was having more

		opportunities to stay in officiating compared to remaining in the sport in a playing capacity.
4	Findings and discussion • "Participants principally chose to focus on officiating for these reasons: 'More opportunities in officiating than playing', 'Injury prevented playing', 'Money' and 'Fitness'"-can fitness be included in this given only 4 respondents discussed this?	Findings and discussion • Table 3 elaborates more on the various motivations. The biggest one was money (11), fitness came next (4), with love of sport last (3). So the extrinsic factor of remuneration was more important than the two key intrinsic factors of fitness and love of sport. Fitness therefore does have a place in the discussion as the second key factor.
	 P11, L12-15. These are some important points. The AFL have been a big advocate of this-perhaps some discussion around the success of the player to umpire pathway within AFL could be discussed here to support your statements. If any respondents outlined this, it could perhaps be included as a quote to highlight this as a positive recruitment and development opportunity for other sports. This would also support your discussion on P14 as well. 	 Yes, the AFL's umpire pathway was significant, something that respondents mentioned, as per P17.
	 P16 L17-30. Is there any information related to the available resources for officiating development (i.e. funding)? 	This was not directly addressed as part of the research. However, access/usage of coaching resources was addressed by respondents as highlighted in feedback re 'Coaching'.
	 Is the quote from "AFL6" consistent within that sport (Table 4 suggests 7 responses mentioned coaching increases in senior levels). 	 Yes, as addressed below, the level of coaching significantly decreased after initial beginner training – and did not increase until (or if) reaching elite-level squad training.
	Is there identification where throughout the development pathway this decline occurred with 2nd tier groups, the coaching requirements increase significantly compared to community level.	• There was a "sink or swim" philosophy at the 2 nd tier level. The assumption was that officials had already received the support needed to do their role, and that progression beyond that was now based on experience and performance. This

P17, L19. This is a very important discussion point and well outlined.

- P18, L14-16. ID for the quote needed as per other quotes throughout. (i.e. community level senior matches? NEAFL?)..
- In my experience in researching with 2nd tier groups, the coaching requirements increase significantly compared to community level. This section could be made clearer by identifying this if possible (does become clearer in figure 2, but maybe greater explanation here is needed)

P17, L19. This is a very important discussion point and well outlined.

- P18, L14-16. ID for the quote needed as per other quotes throughout.
- Figure 2: Good summary of the pathway and impacts on development. Could each section be broken up to demonstrate the individual and external factors. Level 2 could be reworded, as I see it more of a transition to officiating rather than a focus.
- Did the respondents mention if they played and officiated at the same time? Or did they cease playing before commencing an officiating role?
- P21, L8-9. Did you record data on aged commenced officiating? If so, could this be included in the data?

suggests something of a development hiatus, at least formally, but 2nd tier officials are still observed closely for quality. The question, though, is whether ongoing guidance should be better embedded, notwithstanding the experience of these officials.

- ID included. Thx.
- That experience is indeed reflected by respondents, as highlighted under 'Coaching' P14 L13,. This becomes especially so by those reporting that 'coaching increases in senior levels'. As you say, Figure 2 indicates as much.

- ID included. Thx.
- The purpose of Fig 2 is to visually display the pathway of development, irrespective of individual or external factors.
 The latter have been address in Tables 3 and 4.
- 17 of 18 respondents highlighted playing experience prior to commencing officiating (Table 3 – playing experience). All then ceased playing to focus on officiating as outlined in 'Focus on officiating' P9 L9.

• P21, L20-25. Perhaps outlining the age of officiating groups may be of use here (Weston et al. 2010; Castagna et al. 2005). Officials sometimes continue their careers well into their 40's (even in elite competition), which again links back to playing history and the recruitment of officials.

Conclusion

• "Ensure consistent coaching throughout junior officiating"- This links back to my comments from P16.

Good summary of the main findings of the study

References

Weston, M., Castagna, C., Impellizzeri, F. M., Rampinini, E., & Breivik, S. (2010). Ageing and physical match performance in English Premier League soccer referees. Journal of Science and Medicine in Sport, 13(1), 96-100.
 Castagna, C., Abt, G., D'ottavio, S., & Weston, M. (2005). Agerelated effects on fitness performance in elite-level soccer referees. The Journal of Strength & Conditioning Research, 19(4), 785-790.

- Age data was not recorded. It is certainly something to think about in terms of further research.
- Progression was based on ability not age. Minimum age varies across sports. See quote below from p.20.
- "It is interesting to note that the age of respondents in this study did not determine the development pathway to senior officiating. Participants began officiating at different ages and progressed through the levels based only on ability. Age only influenced officiating development indirectly; namely, once officials were unable to pass the fitness requirements to participate at the top tier level. These mature age officials continued participation in the second tier of competition."
- So the sources you recommended below do complement this discussion in terms of ageing and physical fitness. Thx ©
- Thx. The connection is important.
- These references have been added at appropriate sections of the paper and in the list of references.

Folkesson, P., Nyberg, C., Archer, T., & Norlander, T. (2002). Soccer	
referees' experience of threat and aggression: Effects of age,	
experience, and life orientation on outcome of coping strategy.	
Aggressive behavior, 28(4), 317-327.	