ARE WE LEVELLING THE PLAYING FIELD? A QUALITATIVE CASE STUDY OF THE AWARENESS, UPTAKE AND RELEVANCE OF THE IOC CONSENSUS STATEMENTS IN TWO COUNTRIES

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APPENDIX 1: comparison of settings

Australia has a gross domestic product (GDP) of US$59,934, while South Africa has a per capita GDP of US$6,994. English is the official language in Australia and the only language spoken in the home for 73% of the population. There are eleven official languages spoken across South Africa (8% of South African households speak English as their home language).

The Australian healthcare system, while not without challenges, is considered one of the better health care systems globally.[1] The universal public tax-funded health coverage includes free public hospital care as well as substantive and means-tested subsidies for general practice, specialists and pharmaceuticals. The public health services are further supported by a privately funded system of care through a multitude of large health insurers and non-government organisations.[2] South-Africa's pre-democracy healthcare system was characterised by racial segregation and discrimination.[3] This health system continues to face massive challenges, partly due to the persistence of economic inequalities between races, resulting in inequitable health access for poor, uninsured South Africans, and rural groups. The majority (84%) of the population relies on a national, tax-funded, public health sector, staffed by only 30% of the doctors in the country, as their sole provider of healthcare.[3 4] In short, South Africa has been classified as one of the most inequitable countries in the world.[https://data.worldbank.org/][5]

The AOC and SASCOC are the key organisational structures behind Olympic and Paralympic sport in the respective countries. The AOC is a non-government, not-for-profit organisation, with dual roles of Olympic sport (selection and organising Australian Teams to the Olympic Games) and youth sport development. Amongst its objectives, the AOC develops, promotes, and protects the principles of Olympism and the Olympic Movement in Australia in accordance with the Olympic Charter and all regulations and directives issued by

the IOC. The AOC has several different advisory committees including an Athletes' Commission and Medical Commission. The Athletes' Commission provides advice on all matters of the Olympic movement from the perspective of athletes and its members are elected by peers. The Medical Commission is an advisory body that provides advice on matters related to the health and wellbeing of athletes as well as what services are required to support athletes and teams. The SASCOC is a national multi-coded sporting body responsible for the preparation, presentation, and performance of South African teams to the Olympic Games, Paralympic Games, Commonwealth Games, World Games, All Africa Games, Olympic Youth Games, Commonwealth Youth Games and Zone VI Games (SASCOC website). The main focus of SASCOC is to promote and develop high performance sport in South Africa, as well as to act as controlling body for sport in South Africa.[6] The mission of SASCOC is to develop, promote and protect the Olympic movement in South Africa, according to the Olympic charter. The SASCOC has several advisory commissions, including a Medical and Health Sciences Commission and an Athlete's Commission.

Australia has participated in every modern Olympic Games since 1896 and hosted the Olympic Games in 1956 and 2000. In contrast, South Africa's participation in global sporting events was restricted between 1960-1990 due to Apartheid boycotts. South Africa re-joined the Olympic movement after the start of negotiations to end Apartheid in 1990, returning to the Games at the 1992 Summer Olympics and Paralympics. In the Tokyo Summer Olympics (2020), South Africa had 179 athletes participating from a population of over 60.0 million people, while Australia had 478 athletes from a population of 25.7 million.

Table 1. Snapshot of health, population and Olympic participation statistics for South Africa and Australia

	South Africa	**Australia**
Population 2021	60.0 million	25.7 million
GDP current US$ 2021 per capita	6994	59934
Health expenditure	9.11	9.91
Life expectancy at birth, total (years) 2020	64	83
Mortality rate, under-5 (per 1000 live births) 2020	32	4
Official languages spoken	11	1
2020 Tokyo Olympic Games	179 in 19 sports	478 in 30 sports
2020 medals	3 (1 gold, 2 silver)	46 (17 gold, 7 silver, 22 bronze)

Source: https://data.worldbank.org/?locations=ZA-AU; www.teamsa.co.za/commission-details; www.olympics.com.au/the-aoc

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APPENDIX 2: Additional detail on Methods

Data collection

Qualitative experience

The interviews were conducted by MB, who is trained and experienced in qualitative research (PhD using qualitative methodologies).

Interview schedule

The interview questions were developed by LF, CF and MB, guided by the aim of the study. The interview schedule was circulated among the research team edited according to feedback. The full schedule is provided in Table 1 below.

Table 1. Semi-structured interview schedule.

<table>
<tr><td colspan="2">Introduction
• Over recent years, the International Olympic Committee (IOC) Sports Medical and Scientific Commission has supported the development and dissemination of sports medicine consensus statements.
• Since 2004, 27 consensus statements have been published to provide consistent, evidence-based guidance for the promotion of athlete health and wellbeing across the IOC community.
• The number of consensus statements continues to grow. However, to date, the dissemination (where the documents have been used, by whom and how) and implementation (how are the documents used and what are the outcomes) of these statements has not been evaluated. This project is part of an evaluation of the statements.
• The project has been supported by the IOC through funding for it to be conducted, but the IOC are not involved in the design, actual conduct or interpretation of the results.
• Information you provide will not be made known to the IOC in any linked format.
• This means what you speak about will not be identifiable in any reporting or linked back to you in any way.
• There are no right or wrong answers – we are learning about the ways in which knowledge on athlete health is gained, managed and shared.
☐ Confirm completion of consent form ☐ Remind participant of interview process, what to expect and right to withdraw. ☐ Confirm it is okay to audio record the interview</td></tr>
<tr><td colspan="2">Understanding the organisation
Warm up questions to allow interviewee to speak on an easy topic
About the participant's position, role
About the SMC – structure
About safety policies or risk management plans in place
About concerns on athlete health</td></tr>
<tr><td colspan="2">1. What is your position / role in the SMC? How is the SMC configured?</td></tr>
<tr><td colspan="2">2. Do you have any specific concerns regarding athlete health?</td></tr>
<tr><td colspan="2">3. In what ways have you been involved in Olympic athlete health (games attended etc)?</td></tr>
<tr><td colspan="2">4. What do you understand a consensus statement to be?</td></tr>
<tr><td>Awareness of the statements
This section addresses research questions:
1. Are stakeholders aware of the statements?
2. How do the Sports Medical Commissions become aware of, and subsequently access, the statements?</td><td></td></tr>
<tr><td>1. Tell me what you know about the medical statements? -e.g. what topics they address, where they are published, how they are developed?</td><td>Added as interviews progressed:
Why do you think stakeholders may be unaware of these statements?</td></tr>
</table>

<table>
<tr><td colspan="2">2. How did you first learn about the medical statements?</td><td><u>Added as interviews progressed:</u>
How do you think awareness could / should be created around the availability of the consensus statements? (show examples of consensus statements)</td></tr>
<tr><td colspan="3">3. If a new statement became available, how do you think you would learn of it?</td></tr>
<tr><td colspan="3">4. How would you go about accessing a statement?</td></tr>
<tr><td colspan="3">5. Can you list any of the statements you have used or know about?</td></tr>
<tr><td colspan="3">6. Were you aware of any changes in your views or attitudes towards consensus statements over time?</td></tr>
<tr><td colspan="3">7. How do you think your colleagues view consensus statements? What differences might there be between your views and theirs?</td></tr>
<tr><td colspan="3"><u>Usability and acceptability of the statements</u>
This section addresses research questions:
3. How acceptable (in terms of usefulness/practical application, including language) are each of the statements to the Sports Medical Commissions?
4. Which statements have the Sports Medical Commissions adopted or implemented to inform (medical) practices for the support of athletes and how?</td></tr>
<tr><td colspan="2">1. Do you make use of these statements in your organisation / personally?

2. Who decides if a statement is going to be helpful or needed?</td><td>Can you walk me through an example of the process you would usually use to gather information on specific athlete health topics? (eg. The type of information accessed and how)
/
How do you keep up to date with current best evidence?

How do you decide if this information / resource is valuable / of good quality?</td></tr>
<tr><td colspan="2">3. {Provide list of the statements} Is the information presented in the statements useful to your organisation, or to you personally? Why or why not?</td><td>Is there a role for the IOC in providing you with info on the management of athlete health?</td></tr>
<tr><td colspan="3">4. {If applicable} Can you walk me through an example of the process used to integrate a statement?</td></tr>
<tr><td colspan="3">5. Are there any barriers to integration of the statements within your organisation? (Or enablers?)</td></tr>
<tr><td colspan="3">6. Does the format /layout of the statements work for you / your organisation? How could this be changed?</td></tr>
<tr><td colspan="3">7. Do you have any comments about the language used in the statements?</td></tr>
</table>

<table>
<tr><td colspan="2"><u>Use and sharing of information from the statements</u>
This section addresses research questions:
5. Which statements have not been adopted or implemented by the Sports Medical Commissions and why;
6. How do the Sports Medical Commissions share information in the statements with their clinicians/coaches and support staff and how do they ensure it is used?</td></tr>
<tr><td>1. Which statements have you used a) as an organisation, b) personally?</td><td>Are there any reasons why you prefer not to use the consensus statements? Why?</td></tr>
<tr><td>2. Why that particular statement? How was it used?</td><td>Which resources on athlete health have you used a) as an organisation, b) personally?</td></tr>
<tr><td>3. Are there any difficulties you experience when using these resources?</td><td>How was it used?</td></tr>
<tr><td>4. What is the current process for sharing the statements from the IOC to your organisation?</td><td>Is there a different approach you would suggest?</td></tr>
<tr><td>5. How do you share the statements and/or the information in them with your clinicians/coaches/support staff? How do you know this is used by them? What do you think can facilitate this process?</td><td>What is the current process for sharing these resources to your organisation?</td></tr>
<tr><td>6. If an athlete has a problem, what is the benefit of having a statement compared to not having one?</td><td>How do you share these resources with your clinicians/coaches/support staff? How do you know this is used by them? What do you think can facilitate this process?</td></tr>
<tr><td colspan="2"><u>Outcomes from the statements</u>
This section addresses research questions:
7. What are the Sports Medical Commissions views on the extent to which the statements have made an impact on athlete health?
8. What are the important issues faced by Sports Medical Commissions that could be the focus of future statements?</td></tr>
<tr><td>1. Have the statements had an impact on athlete health (e.g injuries, burnout, training load management, athlete preparation, etc.)
Why?
Have you formally measured this? What type of impact?</td><td>Have the resources that you use had an impact on athlete health. Why? Have you formally measured this? What type of impact?</td></tr>
<tr><td colspan="2">2. What is helping or hindering consensus statements to achieve its objective?
(logistics / organisational / personal /inter-personal / society /resources/ time constraints / politics / cultures / impairments)</td></tr>
<tr><td colspan="2">3. Because of the statements, are you doing anything differently?</td></tr>
<tr><td colspan="2">4. How valuable are the statements to you / your SMC? Why or why not?</td></tr>
</table>

5. Are there any topics that you think should be addressed in the statements? What is **missing**? What would you like to see? Are there any topics that you think should be addressed before the next Olympic Games?
6. What advice would you give the people who designed and implemented the consensus statements about how to make it **effective in the real** world?
7. Would you say a consensus statement is the **most effective way** of reaching our goals (athlete health)? If not, what would you recommend? If yes, what can be done to help consensus statements achieve better outcomes?
Closing words Are there any other things regarding the statement that you would like to comment on? Is there anything discussed that you are concerned by? Thank you for participating Remind contact details and use of results Remind withdrawal of results *You can withdraw your consent to participate at any time, without giving us a reason, provided this is communicated to us before we have started to analyse the data and results*

Data analysis

Rigor and Trustworthiness

A relativist approach towards rigor and trustworthiness was adopted. Quality was not judged on a set of predetermined external criteria, but was considered in a study-specific way that was contextually situated.[1,2] Accordingly, the following points were considered throughout the study design, data collection and analysis phases. To enhance quality, it was important to reflect on how the findings could contribute to understanding of the translation of knowledge for athlete health protection and whether the findings were credible, transparent and would also generate new questions within this field. A rigorous, iterative analysis process was adopted that satisfied the research team's judgement of themes that were comprehensive, well-explored and supported by the data. The inclusion of one coder not present during the interviews (CB) facilitated particular discussion around new insights and testing of assumptions. During this process, researchers also reflected upon the ways in which their personal and academic background could shape the interpretations of the data. As such, periodic discussions among the co-authors and their peers were utilised to foreground different perspectives and to examine assumptions. Furthermore, the project team purposefully included a large, multi-disciplinary research team with different strengths and expertise to ensure a robust research design, and a diverse and comprehensive understanding of the data.

Finally, we agree with Braun & Clarke (2019) and Low (2019) that there is always potential for acquiring new insights as long as data continues to be collected and analysed.[3,4] Instead, our focus was on gaining context-sensitive insights from key informants in relation to our research question.[3,5] In this study, the participants were drawn from a limited participant pool, which naturally limited the sample size.

Excerpts from the analytical framework and framework matrix are depicted in Tables 2 and 3.

Table 2. Excerpt from analytical framework

Code	Definition	Example
Awareness through sports medicine platforms	Sports medicine platforms such as SASMA or BJSM has facilitated awareness of consensus statement.	*I mean I guess - I mean BJSM has been very good in positioning the statements and the talk that happens around it from a social media point of view, and also with some of them and I'm just trying to think which ones if I mean this is true, things like infographics make it a lot more accessible to the person on the street and even just in terms of translating the message.*
Unaware of IOC research	Lack of awareness of IOC consensus statements or IOC's role in developing consensus statements	*Yeah, so until you guys got in touch, zero. Really, I hadn't considered it, didn't realise they existed and certainly haven't been presented with any Consensus Statements. We don't see what we don't look for. If we don't know it's there, then we don't go looking for it. If nobody brings it to our attention…*
Awareness through colleagues	Becoming aware of statements through colleagues sharing or discussing statements in a formal or informal capacity	*Some of our colleagues who are doing part-time sports but are closely linked to universities…we've got our colleagues who are studying and as soon as they see something interesting, they post it on the group. So, for now, if I don't go and search for myself, we get information from the WhatsApp group.*
Formatting will depend on who the target audience is	Format, lay-out, use of language must correspond / be determined by target audience	*Are you giving it to SASCOC so the administrators know what to do with it or are you giving it to SASCOC to distribute to athletes? Because if they're giving it to SASCOC to distribute to athletes that SASCOC supports then it should come in infographic or a simple key take on this. If they're giving it to SASCOC for the benefit of their medical staff then it should come like this, it should come like a research and academic document. But if they're giving it to SASCOC for the clinicians that are non-academic that are going to service the athletes then it can probably come like this.*
Used if relevant at the time	Statements utilised if topical issue at the time, or according to type of patients / exposure to conditions encountered at a specific time point	*You know, what I would say the way I use them is it probably depends on what's happening in my world at the moment. The most recent one that I looked at in the last fortnight was one on supplements because you may be aware, we had an Australian athlete who failed a drug test and so supplements, you know, they go up and down. Usually, they go up when there's a crisis.*

Table 3. Excerpt from the framework matrix

		Document analysis (DA) and notes
	Generally limited awareness	
South Africa		DA: Consensus statements not easily located or visible on IOC website DA: No formal dissemination policies from NOCs Note: SA P2 – references mentioned here not IOC consensus statements Note: Awareness appears to be linked to dissemination, whether IOC is considered a source of knowledge for clinical practice, and determined by topics considered to be relevant at the time
Participant 1	**-**	
Participant 2	**-**Limited awareness *For now, in football I've already been interested in hamstrings and ankles. So those ones I've read a lot about.*	
Participant 3	**-**	
Participant 4	-Limited awareness *I mean, the fact that I don't know that those were on the IOC website is an important point because if they're all there, it would be so easy for people, but people don't know. Yeah. I think also, I don't think enough people know that the IOC does research and plays that role in it. I don't think that they know that they have that scientific part to them. That's important, yeah…*	
Participant 5	-Perception that IOC only concerned with Olympic Games -Unaware of IOC's research *I don't think that they go onto the IOC website and seek information there, because one of the things here in this country is that not everybody is aspiring to go to Olympic Games as the doctor...*	
Participant 6	-Unaware of IOC's research *I only learned about the consensus statements very recently. With all my travels, it's hard to say why… so I actually - when I searched, I came across one, and now I'm being part of it(writing a consensus statement)* *Yeah, this is tough... because you're supposed to know about these things.... I don't think we know it actually exists...*	
Participant 7	-Limited awareness *I'm not that familiar with the consensus statements.*	
Australia		
Participant 1	-Limited awareness *I don't know a lot about the IOC medical statements, to be honest…*	

	You get statements about cardiac abnormalities and ECG screening and these sorts of things. But whether or not that was an IOC statement or a statement from other colleges, I'm not sure. So the IOC statements don't stand out from other ones particularly.	
Participant 2	-Limited Awareness *I'm surprised by the fact that you say this - did you say there's 27? Man, that really, you know, that surprised me because I haven't, you know, I certainly haven't come close to read*	
Participant 3	-Unaware of IOC's research *Yeah, so until you guys got in touch, zero. Really, I hadn't considered it, didn't realise they existed and certainly haven't been presented with any Consensus Statements. We don't see what we don't look for. If we don't know it's there, then we don't go looking for it. If nobody brings it to our attention…*	
Participant 4	-	
Participant 5	-	
Participant 6	-Limited Awareness *I think - I've seen - I might have seen something on concussion. I think I've seen something on children, I think I've seen something on women. That's about it. So, I'm not - I deliberately didn't look it up, I feel that I should go and look it up and think oh my God. So that's being honest, it's really vague and I know - I'm just trying to think what the last - it was fairly recent anyway. There was something like children or women or something or perhaps a bit of both. It was reasonably recent, like in the last couple of years*	
Participant 7	-Unaware of IOC's research *I mean I do, we deal with these kinds of things all the time, but I've not been aware that there's been consensus statements in the IOC*	

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5 Braun V, Clake V. Using thematic analysis in psychology. *Qual Res Psychol* 2006;**3**:77–101. doi:10.1191/1478088706qp063oa