SUPPLEMENTARY FILE 4

Survey on BC practices

A questionnaire was developed to assess current practices related to BC in competitive sport. It was based on an original survey from 2013 [6, 48]; questions were adjusted and added to reflect the current landscape of sport and to obtain more clarity and specificity in the responses (e.g., addition of more options). The survey was comprised of 77 items and included fixed-response and open comment questions to reduce author bias in the options provided for the closed questions. The survey included demographic details of respondents and the athletes with whom they work, as well as questions related to current practices related to BC. Athlete performance level was defined following the Tier categories suggested previously [50]. Initially, the original survey (2013) was reviewed by two of the authors. One author was the original author of the 2013 survey so was able to offer insight and reflections regarding gaps in the original survey. The other author was an applied practitioner working across many sports where BC was managed and was able to offer insight from this perspective. Additional questions were developed and added to the survey to address gaps from the original survey. Content validity was obtained through review of the updated survey by the remaining co-authors (n=8) all of whom are subject matter experts in the field of BC research and practice.

The survey was distributed using Survey Monkey and shared via social media and email lists of relevant professional membership groups and professional contacts of the authors. Data were collected from July-October 2022. The study was approved by the University of Colorado, Colorado Springs Institutional Review Board and all respondents provided informed consent by completing the survey. The number of participants that answered each question is reported, and categorical variables are expressed as frequencies

(%). Where possible, Chi-square test for association was conducted using SPSS statistical software package (IBM, New York). Open ended responses were examined independently by two researchers who firstly read through and familiarised themselves with all responses. Data were sorted intuitively by topic and the researchers collaborated to ensure there was agreement on the topics. Then, for the purposes of comparison, using the themes identified in the 2013 survey as a framework [6, 48], responses were allocated to the relevant categories. Again, two researchers collaborated to make sure there was common agreement on the categories the responses were assigned to. There were no responses that fell outside of these categories as illustrated in Table 2.

Respondents

One hundred and twenty-five individuals, working across 26 different countries completed the survey. This compares to 188 participants from 33 countries completing the survey in 2013. The highest proportion of respondents were working with athletes competing at Tier 4 - Elite / International Level (64%), followed by Tier 3 – Highly Trained / National Level (56%), Tier 5 – World Class (46%) Tier 2 – Trained / Developmental (34%) Tier 1 – Recreationally Active (18%). Two respondents reported that they worked with athletes in performing arts. In 2013, the distribution of respondents was spread among regional (45%), national (57%) and international (46%) levels. Current respondents (n = 84) often worked with athletes competing at various levels and worked across 61 different sports; see Table 1. Most respondents were Sports Dietitians / Nutritionists (66%) or Physiologists / Sports Scientists (17%). Other roles included Sports Medicine Physician (8%), Athletic Training / Strength and Conditioning Coach (7%), Sport Coach, Team Manager and Head of Performance (all 5%), Physiotherapist (2%), Sport Psychologist (1%). In 2013, the largest proportion of respondents were also sport dietitians (36%), followed by medical doctors (18%), professors (13%), sport scientists (12%),

administrators/self-employed/judges (9%), coaches (6%), athletic training/strength and conditioning coaches and students (both 3%).

Table S-1. Different types of sport categories that respondents were working in (based on classification outlined by McKay, et al., 2022 (50))

Sports Category (49)	Respondents working in each sport category (n=84)	Examples
Team Sports	13	Basketball, rugby, hockey
Endurance/Long Distance	7	Triathlon, cross country skiing, road cycling
Middle Distance/Power	10	Canoeing, mountain biking, rowing
Speed/Strength	7	Powerlifting, speed skating, ski jumping
Precision/Skill Dependent	15	Curling, sailing, gymnastics
Racquet Sport	4	Wheelchair tennis, squash, badminton
Combat/Weight Making	4	Judo, boxing, wrestling