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Sexual activity before sports competition: A systematic review

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Recently I have read the paper entitled "Sexual activity before sports competition: A systematic review" written by Stefani et al, published in the journal Frontiers in Physiology (2016). Since I have had previous studies on this topic, I noticed some issues in study selection and description of the aforementioned review as I will explain.

The authors chose nine studies according to the inclusion criteria mentioned in page 2 of the review. According to this criterion, only primary studies which evaluated the impact of sexual activity on sports performance were chosen. In Table 2 (page 5) there are details of the studies included.

1. Authors of the second study cited in Table 2 (Dabbs and Mohammed, 1992) measured salivary testosterone concentrations (not blood testosterone as mentioned in the table) in male and female members of four heterosexual couples on a total of 11 evenings before and after sexual intercourse and 11 evenings on which there was no intercourse. These are just laboratory measurements and their relationship with sports performance were not described, so it is not a suitable study for a systematic review according to the authors' inclusion criteria.

2. As for the fifth study cited in Table 2 (Johnson, 1968), the study group had 14 male athletes (not females as mentioned in the table). So, the description of this study in the text (see page 3 of the systematic review), which discusses the analysis of female athlete population compared with that of the male participants, needs correction.

3. In the eighth study mentioned in the table (Sztajzel et al, 2000), the study group were 15 high-level male athletes, consisting of 8 team players, 5 endurance athletes, and 2 weight-lifters (not well-trained male amateur runners as described in the third page of the systematic review). Also, in this study (Sztajzel et al, 2000), significantly higher differences were reported for post maximal stress test heart rate at 5 and 10 minutes during recovery period 2 hours after sexual intercourse, which disappeared when maximal stress test performed 10 hours after sexual activity. So, according to the results of this study, the recovery of an athlete could be negatively affected if he had sexual activity approximately 2 hours before sport event; the important point which is neglected and not explained in the systematic review.

4. Two studies (Anderson et al., 2001; Pupiš et al., 2010) could be suitable studies according to the authors'

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inclusion criteria yet not included in the systematic review. The participants and design of the first study (Anderson et al., 2001) were mistakenly described for Sztajzel et al study (page 3 of the systematic review) and must be corrected.

5. In the sixth study (Meston and Gorzalka, 1995), the consequences of acute exercise on physiological and subjective sexual arousal in females were measured. Once again, the relationship between sexual intercourse and sports performance was not described in this study, making it an unsuitable study for inclusion in this systematic review.

6. The seventh study included in Table 2 (Pour et al, 2013) is a narrative review not a primary study. Thus, this makes it inappropriate to be included in the systematic review, according to authors' inclusion criteria.

7. In the fourth study mentioned in this table (Frauman, 1982), the relationship between physical exercise and sexual behavior was investigated and it was concluded that increased time spent in physical exercise would be related with more frequency of sexual activity. Again, the relationship between sexual intercourse and sports performance was not described in this study, so this paper is not a suitable study for inclusion in the systematic review, either.

8. Strength assessment of the scientific evidence of the studies was performed using the Grading of Recommendations, Assessment, Development, and Evaluations (GRADE) evidence system. But the scores are not calculated and mentioned for each study and the level of strength of evidence cannot be interpreted as low without showing such measurements (accessible at http://clinicalevidence.bmj.com/x/set/static/ebm/learn/665072.html).

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