

An exploration into the intake, knowledge and perceived perceptions of caffeine consumption within a population of elite hockey players.

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Background

Caffeine has the capability to stimulate the body's central nervous system, potentially reducing muscle fatigue, improving concentration levels and post-performance recovery with minimal side effects (Maughan and Gleeson, 2010). This has sparked huge interest amongst the sporting community with field hockey players being no exception (Goldstein et al., 2010). However, research suggests that although professional sports' personnel are experts within their chosen sport there is concern that they possess inadequate knowledge about the basic nutritional principles of effective caffeine supplementation (Llewelyn, 2013).

The aim of the study was to explore the intake, knowledge and perceived perceptions of caffeine consumption within a population of elite hockey players.

Methods

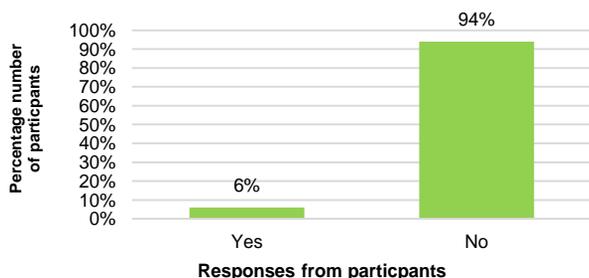
A whole population study was conducted using opportunistic sampling of both the female and male Welsh Hockey team and Development squad through the use of an online questionnaire that was distributed by their managers.

Results

The study had a 70% (n=31) response rate from the anticipated sample size of 44.

Figure 1: Awareness of the daily caffeine recommendations for adults.

The number of participants that were aware of the daily caffeine recommendations for adults



- 94% (n=29) participants out of the 31 participants sampled were not aware of the daily caffeine recommendations.
- No statistical significance was discovered between the knowledge of the daily caffeine recommendation and the reasons for caffeine consumption within elite hockey players (p=0.822).

Figure 2: Grouped reasons for the consumption of caffeine.

	Number of responses	Percentage of responses (%)
Enhance energy/ sporting /mental performance	47	71
Social aspect	14	21
Never thought about it	5	8

- 66 responses were given from the 31 participants due to the multiple-choice style of the question.
- Results indicate that 71% (n=47) of elite hockey players consume caffeinated products to enhance energy and sporting/mental performance.

Discussion and Conclusion

In conclusion a high proportion of respondents (71%) demonstrated positive perceptions relating to the ergogenic effects of caffeine intake on sporting performance. Nevertheless, the degree of individual performance improvement was noted to be variable and likely influenced by the timing of caffeine ingestion, amount ingested, and frequency of habitual caffeine consumption. This supports research by Bell and McLellan (2002).

Interestingly, the majority (94%) of elite hockey players possess inadequate knowledge of the daily caffeine recommendations suggesting caffeine supplementary knowledge is not an influencing factor in their reason for consumption. Reinforcing previous research by Llewelyn (2013) and Dascombe et al., (2010).

Although the reasons for inadequate caffeine supplementation knowledge were not investigated in the present study, research by Cockburn et al., (2014) suggests that the knowledge and perceptions held amongst the elite hockey players could be a result of the potential inaccurate or insufficient nutritional and supplementary knowledge provided by their coaches, media or peers. This potentially emphasises the lack or infrequent nutritional knowledge provided to the Welsh squad.

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