medical sciences forum

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Abstract

Knowledge on Signs and Symptoms of Relative Energy Deficiency in Sports among Healthcare Professionals and Physically Active Individuals †

Namratha N. Pai [1,2], Rachel C. Brown [1], Jillian J. Haszard [3] and Katherine E. Black [1,*]

[1] Department of Human Nutrition, University of Otago, Dunedin 9054, New Zealand; paina062@student.otago.ac.nz (N.N.P.); rachel.brown@otago.ac.nz (R.C.B.)
[2] Department of Dietetics and Applied Nutrition, Welcomgroup Graduate School of Hotel Administration, Manipal Academy of Higher Education, Manipal 576104, India
[3] Center for Biostatistics, University of Otago, Dunedin 9054, New Zealand; jill.haszard@otago.ac.nz
* Correspondence: katherine.black@otago.ac.nz; Tel.: +64-3-479-7949
† Presented at the Nutrition Society of New Zealand Annual Conference, Online, 2–3 December 2021.

Abstract: To reduce the risk of Relative Energy Deficiency in Sports (RED-S), athletes and their support teams first require sufficient knowledge about the signs and symptoms of RED-S in athletic performance, recovery and overall health. Thus, our study aimed to assess knowledge of the signs and symptoms of RED-S among healthcare professionals and physically active individuals. We also assessed the level of comfort that healthcare professionals experienced when providing health and nutrition advice to athletes. A convenience sample of 97 healthcare professionals and 77 physically active individuals were recruited via personal communication and social media. An 18-item validated questionnaire was used to assess knowledge. Health professionals rated their level of comfort when providing advice to athletes on 100 mm visual analogue scales (VAS). A higher proportion of participants (41%) had heard of Triad, compared to those who had heard of Low Energy Availability (20%) (LEA) and RED-S (15%). On the knowledge questionnaire, out of the highest possible score of 18, healthcare professionals scored a mean ± SD of 14 ± 3, which was significantly higher than the average score of 11 ± 3 achieved by the physically active individuals. Participants with some nutrition education scored significantly higher than those with no nutrition education (mean difference = 2.5; $p < 0.001$). The healthcare professionals reported being more comfortable providing advice on menstruation, compared to providing advice on disordered eating/eating disorders, and weight management (median on a 100 mm VAS scale: 80 mm, 58 mm and 61 mm, respectively). All participants agreed that an athletes' health is an important consideration, and rated weight and leanness as less important. Overall, our study demonstrated that participants, particularly healthcare professionals, have some understanding of the signs and symptoms of RED-S. Healthcare professionals have adequate comfort in addressing some elements of RED-S with athletes. However, continuing education is necessary to ensure that these groups are well equipped for the identification, treatment and prevention of RED-S.

Keywords: Relative Energy Deficiency in Sport (RED-S) knowledge; education; healthcare professionals; active individuals

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Citation: Pai, N.N.; Brown, R.C.; Haszard, J.J.; Black, K.E. Knowledge on Signs and Symptoms of Relative Energy Deficiency in Sports among Healthcare Professionals and Physically Active Individuals. *Med. Sci. Forum* **2022**, *9*, 17. https://doi.org/10.3390/msf2022009017

Academic Editors: Sally Mackay, Helen Eyles and Shabnam Jalili-Moghaddam

Published: 28 April 2022

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Author Contributions: Conceptualization, K.E.B. and R.C.B.; methodology, K.E.B., R.C.B., N.N.P. and J.J.H.; formal analysis, N.N.P. and J.J.H.; investigation, K.E.B. and R.C.B.; data curation, K.E.B. and R.C.B.; writing—original draft preparation, N.N.P.; writing—review and editing, K.E.B., R.C.B. and J.J.H.; visualization, N.N.P.; supervision, K.E.B., R.C.B. and J.J.H.; project administration, K.E.B. and R.C.B. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki. This project was approved by the Department of Human Nutrition, University of Otago and reviewed by the University of Otago Human ethics committee, reference D18/068.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to ethical issues.

Conflicts of Interest: The authors declare no conflict of interest.