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## A Cross-Sectional Exploration of Nutritional Wants and Needs of Female Athletes during Pregnancy and Postpartum in the United Kingdom and Republic of Ireland

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Female athletes are increasingly participating in sport during pregnancy and returning postpartum. However, similar to the Sex Data Gap in sport and exercise research<sup>(1)</sup>, there is limited evidence to support athletes during this life stage<sup>(2)</sup> especially as it relates to nutrition. Therefore, as optimal nutrition is essential for long-term maternal and child health, the aim of this study was to investigate specific wants, needs and behaviours in relation to nutrition during pregnancy and postpartum return to sport in athletes.

King's College London provided ethical approval (Ref: LRU/DP-23/24-41676) and the study was pre-registered (<https://doi.org/10.17605/OSF.IO/NCSZK>). An exploratory cross-sectional online survey is being conducted and dissemination is occurring during April and May 2024. Primary variables are assessed using researcher developed and validated measures and included pregnancy and postpartum nutritional support needs, supplement use, athlete level, performance changes and sociodemographic characteristics. Residents of the UK or ROI,  $\geq 18$  years old, trained and/or competed as an athlete prior to and/or during pregnancy within the last eight years are eligible. All data was summarised using IBM SPSS Statistics. Due to the exploratory nature of the survey, preliminary descriptive evidence is shown and comparisons between groups (e.g. athlete level, region, number of pregnancies) will be presented.

35 eligible athletes (UK: 24 (68.6%); ROI: 11 (31.4%)) from 14 team and individual sports have completed the survey. Average age of participants was  $34.2 \pm 3.2$  and 32 (91.4%) had  $\geq 1$  child. 9 participants (25.7%) were currently pregnant, and 7 (20%) had retired due to pregnancy. Only 9 participants (25.7%) received any nutrition advice during pregnancy, and, of the postpartum participants, one participant (3.8%) received nutrition advice during the postpartum period. During pregnancy, participants reported wanting to receive advice from NHS Midwives, Obstetricians and Gynaecologists (37.7%) and fellow athletes who've previously experienced pregnancy (21%).

Whereas postpartum advice was preferable from NHS Midwives, Obstetricians and Gynaecologists (37.1%), sports-specific nutritionist/dietitian (37.1%) and general

nutritionist/dietitian (37.1%). During pregnancy, 28 participants (80%) reported wanting athletespecific nutrition advice related training needs during pregnancy and 19 participants (54.3%) reported wanting more information about pregnancy-specific supplement intake (e.g. folic acid). Postpartum, 22 participants (62.9%) reported wanting athlete-specific nutrition advice related training needs during postpartum and returning to sport and 20 participants (57.1%) reported wanting more information about breast or mixed feeding. The top listed challenges to returning to sport postpartum were childcare provisions (94.3%), infant feeding practices (85.7%) and sleep (82.9%).

The preliminary findings revealed that pregnant/postpartum athletes want further advice in areas such as nutrition advice specific to being an athlete and training during pregnancy and postpartum, pregnancy supplement intake, and infant feeding practices. These areas require further investigation so pregnant and postpartum athlete needs can be better met.

### References

1. Cowley ES, Olenick AA, McNulty KL *et al.* (2021) *Women Sport Phys Act J* 29(2), 146–151.
2. McGregor B, McGrath R, Young J *et al.* (2023) *Sport Soc* 1–33.