
Plan Overview

A Data Management Plan created using DMPonline

Title: Investigating the relationship between nutritional knowledge and athletic performance in recreational runners

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Template: DCC Template

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Project abstract:

Athletic performance can be improved through an adequate nutritional intake (Folasire et al., 2015). Nutritional knowledge can influence dietary intake and impact athletic performance; however, the dietary intake of athletes is often reported as nutritionally deficient and not in line with nutritional recommendations (Heaney et al., 2011). Investigating the relationship between nutritional knowledge and athletic performance has been performed by Folasire et al (2015) and Debnath et al (2019). In both studies, handgrip strength, typically associated with strength and cardiovascular fitness (de Lima et al., 2017), was deployed as the measure for athletic performance. Despite claiming to assess athletic performance, to date no study has investigated the relationship between nutritional knowledge and athletic performance using an appropriate measure. The aims of the study are to investigate the nutritional knowledge of recreational runners through responses to a validated nutritional knowledge questionnaire. The relationship between nutritional knowledge and athletic performance will also be assessed through questionnaire responses and participant 10km times.

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Copyright information:

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Investigating the relationship between nutritional knowledge and athletic performance in recreational runners

Data Collection

What data will you collect or create?

Qualitative and quantitative data will be collected. The qualitative data will be in the form of questionnaire responses and the quantitative data will be in the form of external 10km finish times. The raw data format will be exported from Jisc online surveys as .xls and analysed in IBM SPSS 28.0.

How will the data be collected or created?

The data will be collected as responses to the Abridged-Nutrition for Sport Knowledge Questionnaire using the online survey platform 'Jisc'. The files will be titled NKiRR (Nutritional Knowledge in Recreational Runners) with each version distinguished by an underscore followed by a numerical number (i.e. NKiRR_2). Visual inspection and tests of normality will be performed on the data set.

Documentation and Metadata

What documentation and metadata will accompany the data?

No additional information will be required to interpret the nutritional knowledge scores. However, to interpret the relationship between nutritional knowledge and athletic performance the reader will require access to the nutritional knowledge scores and corresponding 10km event times.

For a reader to reproduce the project they would require the methodology that is outlined in the project, access to SPSS and Microsoft Excel for statistical analysis, a list of abbreviations and the format/file type of the data.

Following the conclusion of the project, the data and corresponding documents will be deposited in the St Mary's University Open Research Archive.

Ethics and Legal Compliance

How will you manage any ethical issues?

All participants will be required to give consent and will be able to withdraw from the project at any time.

The identity of the participants will be protected via number allocation associated with the corresponding data.

No sensitive information will be collected, however, all data will be confidential, stored on a password

secured OneDrive and accessed only by project contributors.

How will you manage copyright and Intellectual Property Rights (IPR) issues?

The data will be owned by the contributors and licensed under 'Creative Commons - BY' with no restrictions on reuse. Data sharing will be postponed in the event of publication.

Storage and Backup

How will the data be stored and backed up during the research?

The data will be stored on the St Mary's University password secured OneDrive, accessible only by the project contributors. The researcher (Jonathan Hilling) will be responsible for the backup and recovery. In the event of an incident, the data will be recovered with the assistance of the St Mary's University IT department.

How will you manage access and security?

To mitigate the risks of a data leak, the data will be stored on the St Mary's University password secured One Drive with the password shared only between the contributors.

The data will primarily be accessed by Jonathan Hilling with Simone Benedetti accessing if required. Data will be collected using an online survey platform, Jisc, and will be downloaded directly to the contributor and uploaded to the St Mary's University One Drive.

Selection and Preservation

Which data are of long-term value and should be retained, shared, and/or preserved?

All collected data must be held for a minimum of 10 years under the Data Protection Act (2018) and GDPR.

The data may be of use to any researcher with the aim of replicating the data or in the event of a systematic review/meta-analysis.

What is the long-term preservation plan for the dataset?

Upon completion of the project, the data will be deposited to the St Mary's University Open Research Archive.

There will be no cost to deposit the data.

Data Sharing

How will you share the data?

Whilst the project is being conducted, the data will be shared with project contributors and only publicly if published. Once the project is completed and deposited in the St Mary's University Open Research Archive it may then be accessed by those looking to replicate or include the study in a review/analysis.

A persistent identifier has not been considered at this time.

Are any restrictions on data sharing required?

After the data is deposited in the St Mary's University Open Research Archive, it will not be subject to restrictions. If the data were to be shared, those looking to access it would be required to consent to a data-sharing agreement whereby the individual(s)/organisation would be responsible for the data whilst accessing it.

Responsibilities and Resources

Who will be responsible for data management?

The primary researcher, Jonathan Hilling, would be responsible for the data management whilst the project is being conducted. The responsibilities would include data capture, storage and backup, data archiving and sharing with project contributors.

What resources will you require to deliver your plan?

Additional training on data licensing and archiving may be required.

No additional hardware or software will be required.