

## Participant Information Sheet

### Study title

Perceptions of mental fatigue in individual sport and its implications on performance.

### Invitation

The aim of this study is to understand the perceptions of athletes and coaches, across a range of individual sports, concerning their understanding of mental fatigue and its implications on the performance of athletes. Research into athletes and coaches understanding/perception of mental fatigue will allow us to develop understanding of the prevalence and impact of mental fatigue in the industry, as well as lay the foundations for future sport-specific mental fatigue scale development. Although mental fatigue assessment tools exist, none of these measures have been validated in a sport-specific context (Diaz-Garci et al, 2021), and as manifestations of mental fatigue depend upon the specific nature of the task presented to the athlete, there is a disparity of measures across the literature, both within and between sports. Consequently, previous mental fatigue research in sporting settings may be invalid or missing crucial themes. Thus, there is a need for an ecologically valid and robust sport-specific scale that can be used to subjectively measure mental fatigue in sport settings and as a manipulation check in experimental studies. An important process in the development of a psychometric scale is to collect qualitative data, either inductively and/or deductively, through focus groups and interviews to generate domains and items (Boateng et al, 2018). As such the data from this research will be used to develop our understanding of athletes and coaches' perception of mental fatigue and generate domains and items for the creation of a sport-specific mental fatigue scale, which can be included in athletes daily work to monitor mental fatigue, or as a manipulation check in experimental studies.

### Why have I been selected? Am I eligible to take part?

We are recruiting men and women over the age of 18, who either participant in an individual sport or professionally coach athletes participating in an individual sport. For the following section we define individual sport *“a sport in which participants compete as individuals, relying on their own physical, psychological and technical attributes”* To be eligible as an athlete, you must have participated in your chosen individual sport for at least 2 years recreationally or competed at a national/international level. Furthermore, you will have worked with or are currently working with a professional coach. To be eligible as a coach you must have worked as a coach for at least 5 years, working with athletes who are over 18 years old and participate recreationally or compete at a national/international level. You may fit into both categories, if this is the case you should define yourself as a coach. If you are at all unsure it is best to mention any concerns to the researchers, all information you provide will be treated in the utmost confidence.

### Do I have to take part?

It is up to you as to whether you take part. If you decide to take part, then you will be asked to sign a consent form. However, you are still free to withdraw at any time during the study without giving reason. If you do withdraw then all your information and data will be discarded.

### **What will taking part in the study involve?**

You will be asked to attend a single online focus group via Microsoft teams. Prior to starting the session, you will be sent an email explaining the purpose of the focus group, what is expected of you, a choice of preferred dates to attend a focus group, the informed consent form (to be completed prior to the focus group) and demographic information form. Upon receiving your signed informed consent, completed demographic information form and preferred dates, we will send you a response confirming the date of your focus group session and the ground rules for the session. Each focus group will have up to 5 other participants who represent your group (athlete or coach).

On the day of the focus group, we will send you a reminder email with the Microsoft teams link to the group included. At the start of the session, you will have the opportunity to ask any questions that you may have. Following this, the focus group will be up to **90-minutes long** and open-ended questions will cover the following topics: current roles and involvement with sport, defining mental fatigue, perceptions of descriptors and associated symptoms, and potential impact and causes of mental fatigue.

### **Is the testing dangerous?**

As the research is using an online focus group to collect the relevant data there is no risk to physical health. Like any discussion, there could be a risk to mental health, but this risk will be minimised with the following ground rules:

- a) Speak one at a time.
- b) Respect each other's opinion. No opinion is wrong, the purpose of collecting this data is to understand a range of opinions and thoughts around mental fatigue.
- c) Respect everyone's confidentiality. Anything we hear in this group discussion should be kept in the group and should not be shared with the public as personal information may be shared in this discussion and it has been shared in confidence that it will not leave this group.

### **What information will be recorded?**

- Informed Consent
- Demographic information – age, gender, chosen individual sport, years of participation in the sport, level of participation in the sport, employment status and training history.
- The focus group will be visually and audibly recorded – The visual recording is for transcription purposes only.

### **How will the data be used and stored?**

All information collected will be kept strictly confidential. Confidentiality, privacy, and anonymity will be ensured in the collection, storage, and publication of study material through anonymisation of everyone's data. To enable us to do this, you will be asked to create a unique ID. This will be done during completion of informed consent – you will be asked to create your **own participant ID**.

If you agree to take part in this research project, the information that you supply will be recorded and processed in line with the UK GDPR / Data Protection Act 2018 / EU GDPR. Data collected will be used by Cameron Hartley, to understand the perceptions of mental fatigue in individual sport and its implications on the performance of athletes. The University of Derby is the data controller.

Anonymised data from this project may be used in future publications. We retain the data for a minimum period of 7 years after such time it will be securely destroyed. Data will not be retained for longer than is necessary.

Our lawful basis for processing this data is your explicit consent.

As a data subject you can request withdrawal of consent within two weeks of collection, by contacting Cameron Hartley. After this period data will have been anonymised and data analyses started. Therefore, we will be unable to extract your individual data.

Our Data Protection Officer (DPO) is Mrs Helen Selby on 01332 591954. Alternatively, you can email [gopr@derby.ac.uk](mailto:gopr@derby.ac.uk). Further information on how we handle your information and details of our DPO can be found on our website: <https://www.derby.ac.uk/its/datagov/privnotice>

### **Additional Information**

Ethics approval for this research has been granted by the University of Derby College of Science and Engineering Research Ethics Committee [insert your study reference number here, e.g. ETH2122-XXXX].

We are obliged to:

- Not seek more information from you than what is essential and necessary for this research.
- Make sure that you are not identified by using a unique identification code.
- Use your anonymized data for the purposes of this study and for any relevant publications that arise from it.
- Store data safely in password-protected databases to which only the named researchers have access.

### **Who is conducting and funding the research?**

The study will be conducted by Cameron Hartley (PhD Student at the University of Derby), with support from a supervisory team (Dr Joel Chidley, Professor Frances Maratos, and Dr Callum Osler). The PhD has been sponsored by Lattice Training LTD.

### **What if I have any questions?**

You are encouraged to get in contact with any questions regarding the study with the researcher's contact details below. They will be happy to go through in detail the study and answer any questions you have regarding the study.

### **Contact details**

Cameron Hartley Email Address: [100425194@derby.ac.uk](mailto:100425194@derby.ac.uk)