



Project Title: Deliberate Recovery: Exploring the Relationship Between Sleep and Expertise in Athletes

Principal Investigators:

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Hello,

I would like to introduce our research project aimed at exploring how athletes use recovery for the purpose of gaining expertise.

This study involves keeping a sleep/training diary for 2 weeks. After the two weeks, you will be asked to complete a questionnaire that takes about 20-30 minutes. Personal information and raw data will be accessible only by the research team and all responses will be identified using a participant code for complete anonymity.

We're looking for athletes aged 18 years and older, training for performance in an individual, aerobic-based sport (e.g. track/cross-country, swimming, cycling, rowing, etc.). This study will provide valuable information about how training and recovery are balanced by competitive athletes of different skill levels. Taking the time to pay attention to your sleep quality can provide enormous benefits to your own training. In addition, as thanks you will receive an educational package with information on your sleep type, recommendations concerning sleep duration for athletes, and suggestions for improving their sleep quality.

Interested? The link below contains a letter of informed consent, and further information about setting up contact information and a time period in which you'd like to complete the study.

<https://www.surveymonkey.com/r/SleepRecoveryIntro>

More questions? The rest of this document contains any further information you should need. Should you have any questions and wish to discuss any aspects of this research project, you may contact the principal investigator at sgwilson@yorku.ca, or the research supervisor, Dr. Joseph Baker, at bakerj@yorku.ca.

Thanks for your support,

Stuart Wilson



Letter of Information

1. Purpose of this Letter

You are invited to participate in our research study which compares characteristics of sleep and training between athletes of varying skill levels. The purpose of this letter is to provide you with information that allows you to make an informed decision regarding participation in this research.

2. Purpose of the Study

The purpose of this study is to enhance our understanding of how athletes use different patterns of recovery to enhance learning and progression within their sport. Specifically, this study aims to describe how characteristics of sleep duration and quality differ between athletes of different skill levels.

3. Inclusion Criteria

In order to be included in the study, all participants must:

- a) be a minimum of 18 years of age
- b) participate in an individual, aerobic-based sport as their main sport. Examples of aerobic-based sports include track/cross-country running, swimming, cycling/mountain bike, triathlon, cross-country skiing, speed skating, rowing, canoe/kayak, etc.

4. Study Procedures

If you agree to participate, you will be asked to fill out a short questionnaire page each morning and evening over the course of a 14-day period. The morning section contains questions about the duration and quality of your previous night's sleep, and the evening section contains questions about your training and napping habits during that day. The diary questionnaires should take 5 minutes to complete in each the morning and evening. After this 14-day diary period, you will be asked to fill out a follow-up questionnaire about some further characteristics of your training history and sleep patterns.

The 14-day diary section of the study can begin at any time the athlete likes, although in order to standardize the results it should take place in a time period with no competitions, a relatively normal training load, no high-altitude training, and no long-haul flights. Specifics will be contained in your introductory email, and we will make efforts to organize a time-period that works for you.

5. Expected Benefits

This study will enhance our understanding of how athletes gain expertise, balancing the existing focus on work with an improved knowledge of recovery. Participants will benefit directly by receiving an education package containing recommendations for sleep duration, suggestions for improving sleep quality and results from the portion of the questionnaire indicating whether they are likely to perform better in the morning as compared to the evening.

6. Possible Risks and Harms

The diary section asks participants to fill out the patterns of their sleep and wake times over the two-week diary portion of the study, and the follow-up



questionnaire contains questions pertaining to the participant's consumption of sleep medication and alcohol over the previous two weeks. Answering these questions may cause some participants to experience some discomfort. This risk is being managed by anonymizing all results, and only releasing results directly to participants at their request, and not to coaches.

7. Voluntary Participation

Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no effect on your relationship with your sport federation or York University.

8. Confidentiality

In the interest of privacy and confidentiality, all of your responses to the questionnaire will be identified using a participant code. As such, only the research team will have access to your personal information and **you will remain anonymous** throughout the course of the research.

9. Contacts for Further Information

Stuart Wilson
Principal Investigator
E: sgwilson@yorku.ca
P: 613-863-1615

Dr. Joseph Baker
Supervisor
E: bakerj@yorku.ca
P: 416-736-2100 ext. 22361

If you have any queries or complaints about the project, or the way you been treated, you are of course free to contact the Graduate Program in the School of Kinesiology and Health Science at kahs@yorku.ca and/or 416-736-5728.

10. Publication

You will remain anonymous throughout the course of the research and reporting of the findings in presentations in various conferences and coaching workshops and publications in various scientific journals and coaching. If you would like to receive a copy of any potential study results, please contact the principal investigator, Stuart Wilson, at sgwilson@yorku.ca.

11. Consent

Your participation in this study will only be confirmed when you have read and agreed with the electronic letter of initial informed consent. Consent must again be given to begin the follow-up questionnaire.

This letter is yours to keep for future reference.

