

Additional file 3. Participant Information Sheet and Informed Consent Form

Participant Information Sheet and Informed Consent Form

Study Title

Effects of Different Doses of Pre-Race Sport-Specific Activation on Competitive State Anxiety, Executive Function, and Skiing Performance in Alpine Skiers

Dear Participant,

You are sincerely invited to participate in this study. Before deciding whether to take part, please read the following information carefully. You may ask the researchers any questions you may have and make your decision after fully understanding the study.

1. Purpose of the Study

This study aims to investigate the effects of different doses of pre-race sport-specific activation on competitive state anxiety, executive function, and skiing performance in alpine skiers. The purpose is to provide scientific evidence for optimizing pre-race preparation strategies.

2. Study Procedures

If you agree to participate in this study, you will take part in three experimental testing sessions, with an interval of approximately 48–72 hours between sessions.

Each testing session will mainly include the following procedures:

Completing questionnaires related to pre-race state;

Performing the assigned dose of pre-race sport-specific activation;

Completing brief executive-function tests, including the Stroop task and Flanker task;

Completing a skiing test, during which first-section time, total skiing time, and errors will be recorded.

This study does not involve the use of any drugs and does not involve the collection of blood, saliva, or other biological samples.

3. Possible Risks and Discomfort

This study is low risk. However, during the testing process, you may experience short-term fatigue, muscle soreness, increased heart rate, attentional fatigue, or sport-related risks such as imbalance or falls during skiing.

If you feel any discomfort, please inform the researchers immediately. The study procedures will be stopped in time, and appropriate measures will be taken.

4. Possible Benefits

Through participation in this study, you may gain a better understanding of your psychological and cognitive state under different pre-race activation conditions and their possible effects on skiing performance. The results of this study may also provide useful reference information for pre-race preparation in alpine skiers.

5. Voluntary Participation and Right to Withdraw

Your participation in this study is entirely voluntary. Even if you agree to participate, you may withdraw from the study at any stage without giving a reason. Withdrawal from the study will not result in any adverse consequences.

6. Privacy Protection

The data collected during this study will be used only for scientific research analysis. Your personal identity information will be kept strictly confidential. When the study results are published, no information that can identify you personally will be disclosed.

7. Costs and Compensation

You do not need to pay any fees to participate in this study. If an adverse event directly related to this study occurs during the research process, the researchers will handle it in a timely manner in accordance with the relevant regulations of the university and applicable rules.

8. Contact Information

If you have any questions about this study or experience any discomfort during the research process, please contact:

Principal Investigator: Mingxuan Li

Telephone: 13609829292

Institution: Harbin Sport University

9. Consent Statement

I have read and understood the above information. The researchers have explained to me the purpose, procedures, possible risks, and rights protection related to this study. I

have had the opportunity to ask questions and have received satisfactory answers. I understand that my participation in this study is entirely voluntary and that I may withdraw at any time without any adverse consequences. I agree to participate in this study.

Participant signature: _____

Date: _____ year _____ month _____ day

Researcher signature: _____

Date: _____ year _____ month _____ day