Supplemental Digital Content 1: **Competition Day Preparation Strategies of Strongman Athletes Survey**

An Invitation

Hello strongman athletes. My name is Dr Paul Winwood and I have a passion for research and improving our understanding and knowledge of the sport of strongman. I invite you to take part in an exciting research project. The survey is called 'Competition Day Preparation Strategies of Strongman Athletes'.

The purpose of this study is to help improve our understanding of the competition day preparation strategies employed by strongman athletes. The information will benefit strongman athletes in regard to improving our understanding and knowledge of competition day strategies that are utilized to enhance strongman competition performance. We would be very grateful if you could take the time to fill out this survey. Please know that your participation is entirely voluntary and you will not be disadvantaged by not participating. We will seek to publish a summary of the findings of the study in a scientific journal, like the Journal of Strength and Conditioning Research. This research continues from our recent published research on the tapering practices of strongman athletes: https://www.researchgate.net/profile/Paul_Winwood

You have been identified (through the use of Facebook and the internet) as a potential participant in this research because you are a strongman competitor, competing in strongman competitions at regional, national or international levels. Only strongman competitors who meet these criteria are eligible to participate in this study.

The on-line survey will take approximately 10 to 15 minutes for you to complete. The questions give you the opportunity to elaborate on the preparation strategies you utilize on strongman competition days. We would like you to answer as many questions as you can as your knowledge and experience in this field is important to us. We want to learn from your experience. The types of questions you will encounter will include; drop down boxes, check boxes, ranking, and text questions. You are asked to please select or tick which boxes are relevant. For text box questions please type your answer in.

An academic publication summarizing the study findings will be sought. The study data set will only be used for the purpose for which it has been collected. No individual's will be identified and only summary data will be reported.

You will complete the survey anonymously as only a participant number will be associated with your answers. The researchers will not be able to identify you as a participant. There are no costs
to you to participate in this research except for your time. The survey link will be active for a period of three months. During this time you are welcome to consider the invitation to take part in this research. By completing the questionnaire you have consented to participate in this research project. This also means that you have read and understood all the information contained in the participant information letter and have clarified any details prior to starting the research project.

The findings of the research will be made available once the report is complete on Research Gate. https://www.researchgate.net/profile/Paul_Winwood. If you would like to know more about this research please contact: Dr Paul Winwood, Toi Ohomai Institute of Technology, Faculty of Community Wellbeing and Development, Tauranga, New Zealand, paul.winwood@toiohomai.ac.nz. This research was approved by the Toi Ohomai Research Committee (TRC 2017.056) and is supported by the World Strongman Federation (WSF) (Research colleague and General Secretary of WSF; Vladislav Redkin; wsfstrongman@hotmail.com).

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Demographics & Background Information

1) What is your gender?

( ) Male  
( ) Female

2) What is your age?

Answer Range: ( ) <18 to ( ) >65

3) What is your height (cm)?

Answer Range: ( ) <150 to ( ) >215

4) What is your body mass (kg)?

Answer Range: ( ) <50 to ( ) >215
5) **What country are you from?**  
Answer Range: ( ) Afghanistan to ( ) Zimbabwe

6) **How many years of general resistance training experience do you have?**  
Answer Range: ( ) 1 to ( ) >50

7) **How many years of strongman implement training experience do you have?**  
Answer Range: ( ) 1 to ( ) >35

8) **How many years have you been competing in the sport of strongman?**  
( ) Never competed (Disqualified – End of survey)  
( ) <1 to ( ) 35

9) **What is the highest level of strongman competition you have competed at?**  
( ) Local/Regional Amateur  
( ) High Level Amateur (i.e. National, Arnold etc)  
( ) International Level Athlete

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**Warm Up Strategies**

*For this section of the survey warm up strategies refer to the physical preparation you perform before the start of a strongman event/competition”.

10) **Do you utilize warm ups in strongman competitions?**

( ) Yes

( ) No

( ) Sometimes - Please elaborate: ________________________________________________
11) Are your warm ups 'self-directed' or 'coach led'?
( ) Self directed
( ) Coach led
( ) Other - Please specify: ______________________

12) What are the main reasons and purposes for your warm-up/s?
____________________________________________

13) On average how long would you consider your normal warm ups to be (to the nearest 5 minutes)? Please explain why your warm up is this length in the comments box.
Answer Range: ( ) 5 min to ( ) 60+ min
Comments:

14) Do you warm up for every event in the strongman competition? Please explain why (or why not) in the comments below.
( ) Yes
( ) No
( ) Sometimes
Comments:

15) How do you monitor exercise intensity in your warm-ups? Please choose all answers that are relevant to you and feel free to comment on your answer/s below.
[ ] Load (as a %1RM)
[ ] Heart Rate (bpm)
[ ] Rate of perceived exertion (RPE)
[ ] Speed of movement
[ ] Other - Please specify: ________________________________
Comments:
16) What length of time (to the nearest minute) between the warm-up and the start of your event do you feel is the optimal recovery period? Please explain your answer in the comments box.

Answer Range: ( ) 1 min to ( ) >30 min

Comments:

17) Do you use post activation potentiation (PAP) techniques (i.e. using very heavy loads in your warm up before an explosive event or the use of plyometrics before a heavy lifting event) in your warms ups to help enhance your force and power production? Please provide an example of a PAP technique you utilize and comment on why you use (or not use) PAP techniques.

( ) Yes

( ) No

Comments:

18) Do you use passive warm up techniques (i.e. use of saunas, spa’s, heating pads etc) prior to your physical warms ups? Please comment on your answer and state what passive warm up techniques you utilize (if any).

( ) Yes

( ) No

Comments:

19) Has there been any circumstances that have affected your recovery time between the end of your warm-up and the start of your event/s? If yes, please specify in the comments box.

( ) Yes

( ) No

Comments:
20) Do you practice using your competition warm-up in your normal training sessions? Please comment on why/or why not.

( ) Yes
( ) No

Comments:

21) Following completion of your warm-up, what do you typically do before an event? Choose all answers that are relevant to you.

[ ] Sit down
[ ] Walk around
[ ] Listen to music
[ ] Put on a tracksuit/extra clothes
[ ] Other - Please specify: ______________________________________________________

Comments:

22) Currently nothing is documented about how strongman athletes warm up for various strongman events. Could you please specify your typical warm up details for the three strongman events listed below?

Note: Distance, Repetitions and Load are open text questions to allow you flexibility to briefly state what you do.

Typical warm up details for the Farmers Walk (Note: please specify in comments box how the details may change for max weight, set distance etc).

Number of warm up sets
Answer Range: ( ) 1 to ( ) >10

Distance covered per set: ________________________________

General Load Used (as a %1RM): _______________________

Average rest period between sets (min)
Answer Range: ( ) 1 to ( ) >10
Any further comments regarding warming up for the farmers walk?:
__________________________________________________________________________________

Typical warm up details for the Log Lift. (Note: please specify in comments box how the
details may change for reps versus max weight).

Number of warm up sets
Answer Range: ( ) 1 to ( ) >10

Distance covered per set: ______________________________

General Load Used (as a %1RM): ______________________

Average rest period between sets (min)
Answer Range: ( ) 1 to ( ) >10

Any further comments regarding warming up for the log lift?:
__________________________________________________________________________________

Typical warm up details for the Stone Lift. (Note: please specify in comments box how the
details may change for set weight stones versus stone loading at a certain weight etc).

Number of warm up sets
Answer Range: ( ) 1 to ( ) >10

Distance covered per set: ______________________________

General Load Used (as a %1RM): ______________________

Average rest period between sets (min)
Answer Range: ( ) 1 to ( ) >10
Any further comments regarding warming up for the stone lift?:
_________________________________________________

23) When warm ups haven’t worked, what went wrong and why?
____________________________________________
____________________________________________

Cognitive Strategies
For the purpose of this survey, Cognitive strategies are defined as "self-directed mental interventions used prior to or during the execution of a strongman event to enhance strongman competition performance”.

24) Do you feel you need to increase, reduce or maintain your psych arousal level to improve your strongman competition performance? Please explain your answer in the comments box.

For the purpose of this study psych arousal is defined as "a mental and emotional state that prepares your body for action"
( ) Increase psych arousal
( ) Reduce psych arousal
( ) Maintain psych arousal
( ) Other - Please specify: ________________________________

Comments:

25) On a scale of 1 to 10 (with 1 being totally relaxed to 10 being totally psyched up) what number do you believe is best for your optimal strongman competition performance? Please briefly explain your answer.

Note: For the purposes of this study 'to psych up' means to get oneself into a state of psychological readiness for an action.
( ) 1  ( ) 2   ( ) 3   ( ) 4   ( ) 5   ( ) 6   ( ) 7   ( ) 8   ( ) 9
( ) 10
26) Does the way in which you currently warm-up before your events help you to mentally focus on the upcoming event and perform optimally? Please explain your answer.

( ) Yes
( ) No
( ) Sometimes: ____________________________________________

Comments:

27) From the list below please indicate your use of each cognitive strategies (i.e. always use, sometimes use, never use) prior to strongman competition events and briefly comment on each strategy.

a. Positive Self talk: Internal encouraging/motivating dialogue

( ) Never use
( ) Sometimes use
( ) Always use

Comments:

b. Emotional Control: Controlling emotions in difficult/competitive situations

( ) Always use
( ) Sometimes use
( ) Never use

Comments:

c. Automaticity: performing skills such that they seem automatic or occurring without conscious effort (i.e. performing your warm ups for your events automatically without much conscious thought)

( ) Always use
d. Goal Setting: setting outcome-related goals or objectives

( ) Always use
( ) Sometimes use
( ) Never use

Comments:

e. Mental Imagery: imagining or visualizing sport movements and or tactics prior to participation

( ) Always use
( ) Sometimes use
( ) Never use

Comments:

f. Preparatory arousal: maintaining an optimal level of physiological and psychological arousal specific to the demands of the task at hand

( ) Always use
( ) Sometimes use
( ) Never use

Comments:

g. Relaxation: implementing methods to remain calm in the face of challenge or pressure

( ) Always use
( ) Sometimes use
( ) Never use

Comments:
h. Attention control: maintaining focus on the task at hand

( ) Always use
( ) Sometimes use
( ) Never use

Comments:

i. Use of music: utilization of music to ‘psych up’ or ‘relax’

Note: please state what kind of music you listen to (e.g. rock, classical, heavy metal Jazz etc) within the comments box

( ) Always use
( ) Sometimes use
( ) Never use

Comments:

28) Do the types of cognitive strategies you use change for different events and/or the level of competition? If yes please explain why.

( ) Yes
( ) No
( ) Sometimes

Comments:

Other Competition Strategies

29) Please indicate if you use any of the following strategies as part of your warm up and briefly state why you use the strategy/s in the comments box.

[ ] Sports massage
[ ] Foam rolling
[ ] Myofascial release work (i.e. use of lacrosse/cricket ball etc in tight muscles)
[ ] Dynamic stretching
[ ] Static Stretching
[ ] Other - Please specify: _________________________________________________

Comments:

30) From the list below please indicate which supplements/substances you generally use on competition day. Please briefly state why you use the supplements and how they help you.

[ ] Energy drinks
[ ] Electrolyte drinks
[ ] Pre-workout supplements
[ ] Caffeine
[ ] Beta alanine
[ ] Creatine
[ ] Amino acids
[ ] Ammonia inhalants
[ ] Other - Please specify: ________________________________

Comments:

31) What nutritional strategies do you utilize to help maintain your strength and energy levels throughout the competition?

____________________________________________

32) Is there anything other information on your competition day preparation that you haven’t covered that you would like to add?

____________________________________________
Thank you for taking our survey. Your response is very important to us.