Official title: Examining the Association of Sun Salutations and Aerobic Exercise With Cognition Among Adults With Psychosocial Stress

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Social Behavioral Research Consent Form

Sun salutations study

You are being asked to participate in a voluntary research study. The purpose of this study is to test the efficacy of an acute intervention involving Yoga or aerobic activity or educational videos, among inactive adults experiencing symptoms of psychosocial stress. Participating in this study will involve the completion of one in-lab session (2 hours) that includes undergoing the intervention as well as assessments, as well as 7 day Fitbit tracking. Risks related to this research include the possibility of minimal discomfort or injury due to exercise; benefits related tothis research include the possibility of medical or health benefits, such as increased energy and reductions in stress levels.

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Why am I being asked?

You are being asked to be a participant in a research study about the effects of an intervention involving Yoga, specifically, sun salutations or aerobic exercise, or educational videos. The purpose of this research is to test the efficacy of the intervention (Yoga or aerobic exercise or educational videos), delivered using a technology medium, among inactive adults experiencing symptoms of psychosocial stress. You have been asked to participate in this research because you are between the ages of 18-45, are currently inactive, report having some symptoms of psychosocial stress, and own a smartphone. Approximately 90 participants will be involved in this research at the University of Illinois at Urbana-Champaign.

Your participation in this research is voluntary. Your decision whether or not to participate will not affect your current or future dealings with the University of Illinois at Urbana-Champaign. If you decide to participate, you are free to withdraw at any time without affecting that relationship.

What procedures are involved?

Placement in groups

The study includes a three-armed design with an intervention involving technology-based Yoga or aerobic exercise or educational videos, designed for individuals who are inactive and experiencing symptoms of stress. The study will consist of wearing a Fitbit for 7 days, followed by one 2 hour appointment. The appointment will involve doing baseline testing, engaging in one session of the intervention you are randomized to, and doing post intervention testing. The appointment will take place in a lab located at the University of Illinois at Urbana-Champaign, and will last a total of 2 hours. Participants will be randomly selected into one of three groups:

Group 1: Participants randomized into this group will be asked to engage in one half hour session of sun salutations (Yoga), delivered through a video instruction on an iPad.

Group 2: Participants randomized into this group will be asked to engage in one half hour session of aerobic activity (walking) on the treadmill.

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Institutional Review Board

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IRB #20067

Group 3: Participants randomized into this group will be asked to engage in one half hour session of watching educational videos, delivered through an IPad.

Regardless of group, all participants will undergo a brief assessment before and after the intervention.

Assessments

All participants, regardless of group placement, will be asked to complete the following questionnaires and procedures:

- **Demographics and medical health history** – You will be asked to complete basic demographic information and a medical health history questionnaire at baseline, during the screening and upon enrollment into the study.
- **Questionnaires** – You will be asked to complete a series of online questionnaires at baseline. This should take approximately 30 minutes to complete.
- **Physical Activity Tracking**- You will be asked to wear an activity tracker, Fitbit Charge 3, for 7 days before engaging in the intervention. Your data will be stored and tracked. You will be asked to regularly sync the device via smartphone.
- **Neuropsychological assessment-** You will be asked to complete a series of computerized and paper-pencil assessments that examine different aspects of thinking and memory.
- **Evaluation of the intervention-** You will be asked to complete close-ended and open-ended questions about the intervention you engaged in. You will also be asked to complete a brief interview lasting 10 minutes, to obtain feedback on the intervention.

All participants will complete the assessments (excluding evaluation) at two time-points: baseline (before you participate in the intervention) and post (after you participate in the intervention). The total time span of your participation in this study will be approximately a total of 8 days, of which 7 days will consist of wearing Fitbit. Prior to wearing the Fitbit, you will have to complete a 30 minute questionnaire at home. Following 7 days of wearing Fitbit, you will have one in-person appointment lasting 2 hours. All participants, regardless of group assignment, will be asked to participate in testing procedures.

What are the potential risks and discomforts?
A risk of this research is a loss of privacy (revealing to others that you are taking part in this study) or confidentiality (revealing information about you to others to whom you have not given permission to see this information). However, to the best of our knowledge, the things you will be doing have no more risk of harm than you would experience in everyday life.

Assessments. Please keep in mind that you may experience a levels of distress about your own psychological well-being when completing the online assessments, as these questions are personal. You may experience some frustration when completing the neuropsychological testing, as these tests are designed to be challenging.

Bodyfat analysis. We will be using a scale that measures bodyfat through a method known as "bioelectrical impedance." This scale will send a small electric current through the body. Therefore, participants should not use the scale if they are pregnant, have a pacemaker or other internal electric device.

Note: If you have an internal electrical device such as a pacemaker, you may participate in this study but you should make it very clear to our research staff that you cannot have this test performed.

Exercise risks. Although we do not anticipate any major injuries to occur, it is necessary to notify you of some of the potential risks associated with engaging in exercise. When individuals who have been relatively sedentary engage in exercise, there is a chance of incurring minor injuries and/or discomfort due to the intensified use of major muscle groups, but we do not expect any major injuries to occur. If symptoms of extreme fatigue or pain arise at any point during the study, please contact the research staff and your physician if necessary. To the best of our knowledge, the things you will be doing have no more risk of harm than you would experience in everyday life.

The University of Illinois does not provide medical or hospitalization insurance coverage for participants in this research study nor will the University of Illinois provide compensation for any injury sustained as a result of participation in this research study, except as required by law. We strongly suggest that you pay close attention to all safety instructions we provide.

Are there benefits to participating in the research?
You may directly benefit from participation in the research by experiencing increases in health or well-being, but this is not guaranteed. We hope the information learned from this study will benefit inactive adults experiencing psychosocial stress.

What other options are there?
You have the option to not participate in this study.

Will my study-related information be kept confidential?
We will use all reasonable efforts to keep your personal information confidential, but we cannot guarantee absolute confidentiality. When this research is discussed or published, no one will know that you were in the study. But, when required by law or university policy, identifying information (including your signed consent form) may be seen or copied by: a) The Institutional Review Board that approves research studies; b) The Office for Protection of Research Subjects and other university departments that oversee human subjects research; or c) University and state auditors responsible for oversight of research.

Will I be reimbursed for any expenses or paid for my participation in this research?
Participants will receive a total of $25 for completing all aspects of the study, including engaging in the intervention, assessments at baseline and post-intervention, and study evaluation.

Can I withdraw or be removed from the study?
If you decide to participate, you are free to withdraw your consent and discontinue participation at any time.

The Researchers also have the right to stop your participation in this study without your consent if:

→ *They believe it is in your best interests;*
→ *You were to object to any future changes that may be made in the study plan;*
→ *You are disruptive to the research process;*

What if I am an Illinois student?
You may choose not to participate or to stop your participation in this research at any time. This will not affect your class standing or grades at UIUC. The investigator may also end your participation in the research. If this happens, your class standing or grades will not be affected. You will not be offered or receive any special consideration if you participate in this research.

What if I am an Illinois employee?
Your participation in this research is in no way a part of your university duties, and your refusal to participate will not in any way affect your employment with the university, or the benefits, privileges, or opportunities associated with your employment at the University of Illinois at Urbana-Champaign. You will not be offered or receive any special consideration if you participate in this research.

Will data collected from me be used for any other research?
Your de-identified information could be used for future research without additional informed consent.

Who should I contact if I have questions?
Contact the researchers in the Exercise, Technology, and Cognition Lab at 217-300-7484 or email address: map7@illinois.edu

- if you have any questions about this study or your part in it,
- if you have questions, concerns or complaints about the research.

What are my rights as a research subject?
If you have any questions about your rights as a participant in this study, please contact the University of Illinois at Urbana-Champaign Office for the Protection of Research Subjects at 217-333-2670 or irb@illinois.edu.

I have read the above information. I have been given an opportunity to ask questions and my questions have been answered to my satisfaction. I agree to participate in this research. I will be given a copy of this signed and dated form.

_____ _____
Signature Date

_____
Printed Name

_____ _____
Signature of Person Obtaining Consent Date (must be same as subject's)

_____
Printed Name of Person Obtaining Consent