

Appendix file 1: PASS Participant Survey Questions

Some acceptability questions adapted from Curtis [1] and DiBisceglie [2]. Physical activity questions are from the International Physical Activity Questionnaire short form [3]

[baseline only]

INTRODUCTION TEXT

Hello! We are researchers from the Department of Kinesiology and Health Promotion at California State Polytechnic University, Pomona. We are conducting the PASS (Physical Activity and Social-media Support) study to investigate user perspective of physical activity education through social media. We are recruiting 45 people to participate in this study. From this study, we hope to determine whether users trust the content shared on Instagram and whether an Instagram-delivered intervention is acceptable. This study has been reviewed and approved by the Cal Poly Pomona Institutional Review Board (protocol # ___).

During this study participants will be required to follow a specific Instagram account and participate in weekly surveys for 4-weeks. Participants are also required to complete follow-up surveys at 2 months and 3 months. Exercise is encouraged through the intervention, but not required. Throughout the study, participants can expect to spend at least 10 minutes per week interacting with the Instagram account and an additional 5 minutes per week completing the study survey. Participants that complete the study and participant in follow-up survey will be entered to win a wearable fitness tracker as compensation.

If you would like to participate, please continue to determine your eligibility, and complete the enrollment survey. **The survey can take up to 15 minutes to complete.** You may contact [REDACTED] [REDACTED] should you have any questions.

ELIGIBILITY QUESTIONS

Before you can continue with study enrollment, we must determine if you are eligible.

1. Are you at least 18 years old?
 - a. Yes
 - b. No
2. In total, how many minutes per week do you take part in planned exercise that makes you sweat? _____
3. Do you have an active Instagram account?
 - a. Yes
 - b. No

PAR-Q+

The health benefits of regular physical activity are clear, more people should engage in physical activity every day of the week. Participating in physical activity is very safe for MOST people. This questionnaire will tell you whether it is necessary for you to seek further advice from your doctor OR a qualified exercise professional before becoming more physically active. **Please read the 7 questions below carefully and answer each one honestly.**

4. Has your doctor ever said that you have a heart condition or high blood pressure?

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- a. Yes
- b. No
5. Do you feel pain in your chest at rest, during your daily activities of living OR when you do physical activity?
 - a. Yes
 - b. No
6. Do you lose balance because of dizziness OR have you lost consciousness in the last 12 months? Please answer NO if your dizziness was associated with over-breathing (including during vigorous exercise).
 - a. Yes
 - b. No
7. Have you ever been diagnosed with another chronic medical condition (other than heart disease or high blood pressure)?
 - a. Yes
 - b. No
8. Are you currently taking prescribed medications for a chronic medical condition?
 - a. Yes
 - b. No
9. Do you currently have (or have had within the past 12 months) a bone, joint, or soft tissue (muscle, ligament, or tendon) problem that could be made worse by becoming more physically active? Please answer NO if you had a problem in the past, but it does not limit your current ability to be physically active.
 - a. Yes
 - b. No
10. Has your doctor ever said that you should only do medically supervised physical activity?

INELIGIBILITY OR INFORMED CONSENT

****If respondent answers #1 no, #2 >150 minutes, OR #3 no, then they are not eligible.****

Based on your responses, you are not eligible for our study. Thank you for your interest.

****If respondent answers "yes" to #4- OR 10****

Based on your responses, you should consult with your doctor or a qualified exercise professional before becoming more physically active. Thank you for your interest in our study.

All other responses, eligible

Congratulations, you are eligible for our study! You are being invited to participate in a research study, which the Cal Poly Pomona Institutional Review Board (IRB) has reviewed and approved for conduct by the investigators named here. This form is designed to provide you - as a human subject/participant - with information about this study. The investigator or her representative will describe this study to you and answer any of your questions. You are entitled to an Experimental Research Subject's Bill of Rights and a copy of this form. If you have any questions about your rights as a subject or participant, complaints about the informed consent process of this research study, or experience an adverse event (something goes wrong), please contact the Research Compliance Office within Cal Poly Pomona's Office

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of Research at 909.869.4215. More information is available at the IRB website, <http://www.cpp.edu/~research/irb/index.shtml>

Your participation in this study is completely voluntary. You may benefit from the educational material shared on Instagram and may become more physically active. Some potential risk for participating include guilt or other negative feeling toward exercise. As a participant, you also assume the privacy risk associated with use of Instagram. You will not be required to share personal information through Instagram. There is also a minimal risk for exercise-related injury should you become more physically active. Should you decide to stop your participation, you may do so without penalty. Your participation will help researchers understand user's confidence and acceptance of Instagram-delivered interventions. Your participation is confidential. The general findings of this study will be shared through manuscripts and research presentations.

To participant in the study, please approve of the following consent statement

I hereby give my consent to participate in the research study entitled "PASS (Physical Activity and Social-media Support)". I have read the preceding information and am aware of the potential risks and complications. I fully understand that I may withdraw from this research project at any time or choose not to answer any specific item or items without penalty. I also understand that I am free to ask questions about techniques or procedures that will be undertaken. I am aware that there is no compensation for my participation. Finally, I understand that information obtained about me during the course of the study will be kept anonymous and cannot be traced back to me.

- I approve and consent to participate in the study.
- I DO NOT consent to participate in the study.

If respondent does not consent

Based on your responses, you are not eligible for our study. Thank you for your interest.

ENROLLMENT SURVEY

The next series of questions will let us know a little more about you.

- What is your age?
 - 18-25 years
 - 26-39 years
 - 40-59 years
 - 60+ year
- What is your gender?
 - Male
 - Female
 - Non-binary
 - Prefer not to say
- What race/ethnicity do you most identify?
 - White
 - African-American/Black
 - Native American/ Alaskan Native

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- Asian
- Native Hawaiian or Other Pacific Islander
- Other
- Where do you reside? (State dropdown)
- What is your level of education?
 - Less than high school
 - High school graduate
 - Some college
 - 2 year degree
 - 4 year degree
 - Professional degree
 - Doctorate
- How long have you used Instagram?
 - <1 month
 - 1-6 months
 - 6-12 months
 - 1-2 years
 - >2 years

[baseline and follow-up]

We are interested in your habits and perspective over the **last week**. Please answer the following questions with the best of your ability.

- What is your Instagram handle? _____
- How often do you use Instagram?
 - Never/Less than once a month
 - 1-3 times per month
 - 1-6 times per week
 - 1-2 times per day
 - 3-6 times per day
 - 7+ times per day
- On a scale of 1-10, how much do you trust the exercise-related content presented on Instagram?
1 2 3 4 5 6 7 8 9 10
Not applicable
- Did you learn something new about physical activity on Instagram?
 - Strongly disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly agree
- Did you do any further research on content you view on Instagram?
 - Strongly disagree
 - Disagree

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- Neutral
- Agree
- Strongly agree
- On a scale of 1-10, how much do you enjoy exercise-related content on Instagram?
1 2 3 4 5 6 7 8 9 10
Not applicable

The following questions will ask you about the time you spent being physically active in the last 7 days. Please answer each question even if you do not consider yourself to be an active person. Please think about the activities you do at work, as part of your house and yard work, to get from place to place, and in your spare time for recreation, exercise or sport.

Think about all the vigorous activities that you did in the last 7 days. Vigorous physical activities refer to activities that take hard physical effort and make you breathe much harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.

- During the **last 7 days**, on how many days did you do vigorous physical activities like heavy lifting, digging, aerobics, or fast bicycling
1 2 3 4 5 6 7
Not applicable
- How much time did you usually spend doing **vigorous** physical activities on one of those days?
Hours per day: 0-24, Not applicable
Minutes per day: 0-60, Not applicable

Think about all the moderate activities that you did in the last 7 days. Moderate activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.

- During the **last 7 days**, on how many days did you do moderate physical activities like carrying light loads, bicycling at a regular pace, or doubles tennis? Do not include walking.
1 2 3 4 5 6 7
Not applicable
- How much time did you usually spend doing **moderate** physical activities on one of those days?
Hours per day: 0-24, Not applicable
Minutes per day: 0-60, Not applicable

Think about the time you spent walking in the last 7 days. This includes at work and at home, walking to travel from place to place, and any other walking that you have done solely for recreation, sport, exercise or leisure.

- During the **last 7 days**, on how many days did you do walk for at least 10 minutes at a time?
1 2 3 4 5 6 7
Not applicable
- How much time did you usually spend **walking** on one of those days?
Hours per day: 0-24, Not applicable
Minutes per day: 0-60, Not applicable

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This question is about the time you spent sitting on weekdays during the last 7 days. Include time spent at work, at home, while doing course work and during leisure time. This may include time spent sitting at a desk, visiting friends, reading, or sitting or lying down to watch television.

- How much time did you usually spend **sitting** on one a week day?
Hours per day: 0-24, Not applicable
Minutes per day: 0-60, Not applicable

[baseline only]

The survey is almost complete! You will be randomly assigned to follow a Instagram account for the study. You may receive a follow request directly from the study Instagram account, but you will also receive an email with the study Instagram account.

In addition, we will email you a follow-up survey weekly for 4-weeks, after 2 months, and after 3 months.

What is your email address? _____

--page break--

Thank you for completing the enrollment survey! Soon, our researchers will email you the study account you have been randomly assigned to. Please bookmark and turn on notifications from this account to view all content.

You may contact Dr. Lewis-Trammell (zakkooyal@cpp.edu) and Shalis Danayan (sdanayan@cpp.edu) should you have any questions.

[follow-up only]

We are interested in your experience thus far in the Instagram account you are following for the study.

- How often did you interact with this account?
 - Less than daily
 - Less than 5 times per day
 - 5-9 times per day
 - More than 10 times per day
- On a scale of 1-10, how much do you trust the content presented on the Instagram account?
1 2 3 4 5 6 7 8 9 10
Not applicable
- Did you learn something new about physical activity from the Instagram account?
 - Strongly disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly agree
- Did you do any further research on content presented on the Instagram account?
 - Strongly disagree
 - Disagree

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- Neutral
 - Agree
 - Strongly agree
- On a scale of 1-10, how much do you enjoy the Instagram account?
1 2 3 4 5 6 7 8 9 10
Not applicable
- This account has helped increase your motivation to exercise.
 - Strongly disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly agree
- Overall, how satisfied are you with the account?
 1. Extremely satisfied
 - 2.
 - 3.
 - 4.
 5. Extremely dissatisfied
- What do you like best about this account? _____

--page break--

Thank you for completing the follow-up survey! You have been entered into a drawing to receive a free wearable activity tracker. The raffle will take place in August 2021. The researchers will reach out to you at that time if you are randomly selected. In the meantime, please continue to interact with the study Instagram.

You may contact [REDACTED]
should you have any questions.

References

1. Curtis, R.G.; Ryan, J.C.; Edney, S.M.; Maher, C.A. Can Instagram be used to deliver an evidence-based exercise program for young women? A process evaluation. *BMC Public Health* **2020**, *20*, 1506, doi:10.1186/s12889-020-09563-y.
2. DiBisceglie, S.; Arigo, D. Perceptions of# fitspiration activity on Instagram: Patterns of use, response, and preferences among fitstagrammers and followers. *Journal of Health Psychology* **2019**, 1359105319871656.
3. Craig, C.; Marshall, A.; Sjostrom, M.; Bauman, A.; Lee, P.; Macfarlane, D.; Lam, T.; Stewart, S. International Physical Activity Questionnaire-Short Form. **2017**.



Appendix file 2: CONSORT 2010 checklist of information to include when reporting a randomised trial*

Section/Topic	Item No	Checklist item	Reported on page No
Title and abstract			
	1a	Identification as a randomised trial in the title	Pg 3
	1b	Structured summary of trial design, methods, results, and conclusions (for specific guidance see CONSORT for abstracts)	Pg 2
Introduction			
Background and objectives	2a	Scientific background and explanation of rationale	Pg 2
	2b	Specific objectives or hypotheses	Pg 2
Methods			
Trial design	3a	Description of trial design (such as parallel, factorial) including allocation ratio	Pg 9
	3b	Important changes to methods after trial commencement (such as eligibility criteria), with reasons	Pg 4
Participants	4a	Eligibility criteria for participants	Pg 3
	4b	Settings and locations where the data were collected	Pg 8
Interventions	5	The interventions for each group with sufficient details to allow replication, including how and when they were actually administered	Pg 4-7
Outcomes	6a	Completely defined pre-specified primary and secondary outcome measures, including how and when they were assessed	Pg 8
	6b	Any changes to trial outcomes after the trial commenced, with reasons	N/A
Sample size	7a	How sample size was determined	Pg 8
	7b	When applicable, explanation of any interim analyses and stopping guidelines	N/A
Randomisation:			
Sequence generation	8a	Method used to generate the random allocation sequence	Pg 4
	8b	Type of randomisation; details of any restriction (such as blocking and block size)	Pg 4
Allocation concealment mechanism	9	Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned	Pg 4
Implementation	10	Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions	Pg 4

Blinding	11a	If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how	N/A
	11b	If relevant, description of the similarity of interventions	Pg 5
Statistical methods	12a	Statistical methods used to compare groups for primary and secondary outcomes	Pg 8
	12b	Methods for additional analyses, such as subgroup analyses and adjusted analyses	N/A
Results			
Participant flow (a diagram is strongly recommended)	13a	For each group, the numbers of participants who were randomly assigned, received intended treatment, and were analysed for the primary outcome	Pg 10
	13b	For each group, losses and exclusions after randomisation, together with reasons	Pg 9
Recruitment	14a	Dates defining the periods of recruitment and follow-up	Pg 8
	14b	Why the trial ended or was stopped	N/A
Baseline data	15	A table showing baseline demographic and clinical characteristics for each group	Pg 10
Numbers analysed	16	For each group, number of participants (denominator) included in each analysis and whether the analysis was by original assigned groups	Pg 10
Outcomes and estimation	17a	For each primary and secondary outcome, results for each group, and the estimated effect size and its precision (such as 95% confidence interval)	Pg 12
	17b	For binary outcomes, presentation of both absolute and relative effect sizes is recommended	N/A
Ancillary analyses	18	Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing pre-specified from exploratory	Pg 8-12
Harms	19	All important harms or unintended effects in each group (for specific guidance see CONSORT for harms)	N/A
Discussion			
Limitations	20	Trial limitations, addressing sources of potential bias, imprecision, and, if relevant, multiplicity of analyses	Pg 14
Generalisability	21	Generalisability (external validity, applicability) of the trial findings	Pg 13
Interpretation	22	Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence	Pg 8-12
Other information			
Registration	23	Registration number and name of trial registry	Pg 3
Protocol	24	Where the full trial protocol can be accessed, if available	Pg 3
Funding	25	Sources of funding and other support (such as supply of drugs), role of funders	Pg 14

*We strongly recommend reading this statement in conjunction with the CONSORT 2010 Explanation and Elaboration for important clarifications on all the items. If relevant, we also recommend reading CONSORT extensions for cluster randomised trials, non-inferiority and equivalence trials, non-pharmacological treatments, herbal interventions, and pragmatic trials. Additional extensions are forthcoming: for those and for up to date references relevant to this checklist, see www.consort-statement.org.