

Participant Information Sheet

Study title: Personalized Support for Physical Activity using LLMs & cMABs

Principal Investigator: [PI NAME / Research Team]

Affiliation: [University of Toronto — Department / Lab]

Contact: phintervention@gmail.com

Ethics approval number: [ETHICS APPROVAL NUMBER]

Data protection officer / ethics office: ethics.review@utoronto.ca — Tel: 416-946-3273

Invitation

You are invited to take part in a research study investigating whether personalized messages generated by large language models (LLMs) and contextual multi-armed bandits (cMABs) can support physical activity through behavior change techniques (BCTs). Taking part is voluntary; this sheet gives key information to help you decide.

Purpose of the study

The study aims to understand how automatically personalized messaging (using LLMs and cMAB algorithms) affects daily physical activity and participant experiences. Findings will inform scientific publications and future interventions.

Who can take part

- Adults aged 18 years or older.
- Fluent in English.
- Access to a smartphone or computer with internet.

What participation involves

The study has up to four parts. You will complete some or all parts depending on your enrolment and choices:

1. **Section 1 — Pre-study questionnaires (baseline):**

- Purpose: collect demographic, health, and behavior data used to personalize messages.
- Time: ~30–45 minutes.

2. **Section 2 — Daily intervention & monitoring (28 days):**

- Each day you will receive two short questionnaires for 28 days:
 - One containing a motivational message at the time you choose at sign-up.
 - One end-of-day quick check asking whether you completed physical activity that day.
- There will be a short 5-minute online check-in meeting around day 14.
- Time: daily questionnaires take ~3–5 minutes; the 14-day check-in ≈ 5 minutes.

3. **Section 3 — Conclusion questionnaire:**

- Final set of questions about your experience.
- Time: ~30–45 minutes.

4. **Optional Section 4 — Online interview:**

- Limited places; extra compensation available.
- If you wish to participate, a separate sign-up email will be sent about a week before the study ends.
- Time: ~1 hour

Total expected time commitment: up to **4 hours** total across the 30-day period (or **5 hours** if you take part in the optional interview).

Compensation

Participants will receive Amazon gift vouchers distributed by email after the study concludes (approx. mid-November to early December).

Compensation tiers:

- Section 1 + first 14 days of Section 2 (including the check-in): **24 CAD** (~2 hours)
- Section 1 + full Section 2: **38 CAD** (~3 hr 10 min)
- Section 1 + Section 2 + Section 3: **48 CAD** (~4 hours)
- Section 1 + Section 2 + Section 4 (optional interview): **60 CAD** (~5 hours)

Participants who only complete the pre-study questionnaire or who drop out before the 14-day check-in are not eligible for monetary compensation due to limited resources. Please consider this before signing up.

Use of technologies

- The research uses large language models (LLMs) to generate personalized motivational messages and contextual multi-armed bandit (cMAB) algorithms to adapt message selection over time.
- Your questionnaire responses will feed the personalization models to tailor messages for the intervention.

What data will be collected

- Pre-study questionnaire responses (demographics, health, behavior).
- Daily questionnaire responses (motivational message engagement, self-reported physical activity).
- Notes from the 14-day check-in (no recording) unless you explicitly consent to audio/video.
- Optional interview transcripts (if you take part and consent).
- Email address (used for communication and voucher distribution).

Storage, confidentiality, and data retention

- Research data will be stored on secure University of Toronto servers with access restricted to the research team.

- Identifying information (e.g., emails) will be stored separately from research data and replaced with study IDs.
- Data will be retained for **[RETENTION PERIOD — e.g., 5 years]** and then securely deleted, unless otherwise required by law or institutional policy.
- Only aggregated, de-identified data will be used in publications or presentations. No individual will be identifiable in reports.

Withdrawal

- Participation is voluntary. You may withdraw at any time without penalty.
- If you withdraw, you may request deletion of your identifiable data prior to aggregation or analysis. Some data already used in aggregated analyses may not be removable from those results; contact the study team to discuss.

Potential risks and benefits

- **Risks:** Minimal. You may find some questionnaire items sensitive. There is a small risk of loss of privacy — safeguards are in place to minimize this.
- **Benefits:** There may be no direct personal benefit; participants may find motivational messages helpful. The research may benefit future interventions for physical activity promotion.

Publication and future use

Results will be reported in scientific journals and conferences. De-identified data may be used for future research or shared with other researchers under agreements that protect participant privacy.

Independent review and complaints

For an independent opinion regarding the study and your rights, contact:

- University of Toronto Research Oversight and Compliance Office — Human Research Ethics Program: ethics.review@utoronto.ca, Tel: 416-946-3273.

- Europe (GDPR): You may submit a complaint to the European Data Protection Supervisor:
https://www.edps.europa.eu/data-protection/our-role-supervisor/complaints_en

How to sign up

Complete the sign-up form at: [GOOGLE FORM LINK / REPOSITORY LINK / YOUR_SIGNUP_URL]

You will receive a confirmation email with details and an approximate schedule.

Questions

Contact the research team at: phintervention@gmail.com