

# **CHRD 2023: Abstract Submission Form**

### **Submitter Name**

Andrea MacIntosh

**Presenter Name** 

Andrea MacIntosh

**Research Category** 

Clinical

**Presenter Status** 

Non-Trainee

Role in the project

Design Write Abstract study coordinator

#### **Title**

Preferences for exercise interventions for people living with type 1 diabetes: A discrete choice experiment

# **Background**

Regular physical activity is a cornerstone to cardiometabolic health and quality of life for people with type 1 diabetes (T1D).

#### **Objective**

Understanding preferences for exercise training for people with T1D could help increase adherence and retention in future randomized trials.

# **Methods**

We conducted a discrete choice experiment, distributed as an online survey across Canada between June and August 2021. The survey design included five attributes common to an exercise intervention: exercise type, time of day, and program design, intensity, and duration. Each attribute had three different options or levels within it. Respondents were presented different scenarios involving the attributes and asked to select which levels were most preferable. The survey was co-designed, and pilot tested with patient partners involved on our team.

#### Results

The final design included 12 questions, each with three alternatives. There were 458 respondents; 280 completed all questions. The median age at diagnosis was 18 years (range: 7-32 years), and 176 (73.3%) were female. Preferences for exercise training programs were a combination of strength and endurance compared to either cardiovascular (-0.104  $\pm$  0.47) or strength (-0.13  $\pm$  0.4) training alone. Individualized

exercise was preferred over group-based exercise (-0.12  $\pm$  0.46) and individual exercise with supervision (-0.08  $\pm$  0.46). Medium intensity exercise was preferred over high (-0.17  $\pm$  0.41) or low intensity (0.01  $\pm$  0.41). Sessions 30-60 minutes long were preferred over sessions <30 mins (0.09  $\pm$  0.45) and sessions >60 minutes (-0.24  $\pm$  0.46). Finally, morning and evening sessions were ranked similarly with afternoon sessions the least preferred (-0.09  $\pm$  0.38). Preferences were similar for men and women.

#### Conclusion

These data could be used to inform future randomized trials of exercise training to increase adherence to an exercise intervention or in clinical practice for diabetes educators supporting individuals living with T1D to adopt a more active lifestyle.

# **Authors**

Name	Email	Role	Profession
Andrea MacIntosh	amacintosh@chrim.ca	Presenting Author	Other
Dana Greenberg	drtangreen@gmail.com	Co Author	Other
Marley Greenberg	marley.greenberg@gmail .com	Co Author	Other
Nika Klaprat	nklaprat@chrim.ca	Co Author	Other
Joel Brandt	joel.brandt@me.com	Co Author	Other
Natasha Gregoire	natashagregoire00@gm ail.com	Co Author	Other
Sylvie Dostie	sylviedostie@hotmail.co m	Co Author	Other
Denis Boutin	denis62.boutin@gmail.co m	Co Author	Other
Conrad Pow	conrad.pow@nygh.on.ca	Co Author	Other
Julia Witt	julia.witt@umanitoba.ca	Co Author	Associate Professor
Jonathan McGavock	jmcgavock@chrim.ca	Co Author	Full Professor