A personalised mobile app for physical activity: A quasi-experimental study

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Outline

Background (Why we did the study)

Methods (What we did)

Results & Discussion (What we found)

Conclusion (Why you should care)

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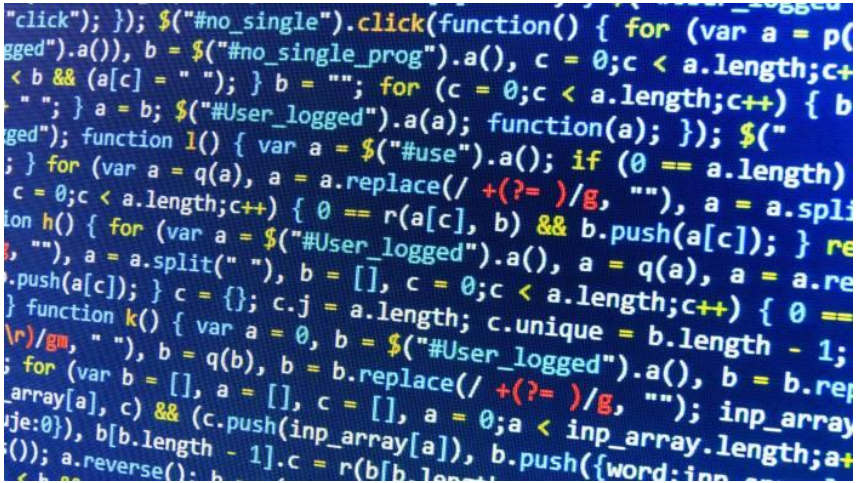
Background

THE IMPORTANCE OF PERSONALISATION FOR PHYSICAL ACTIVITY

doi: 10.1136/bjsports-2020-102892
doi: 10.2196/11439

Background

GAPS IN CURRENT PERSONALISATION RESEARCH

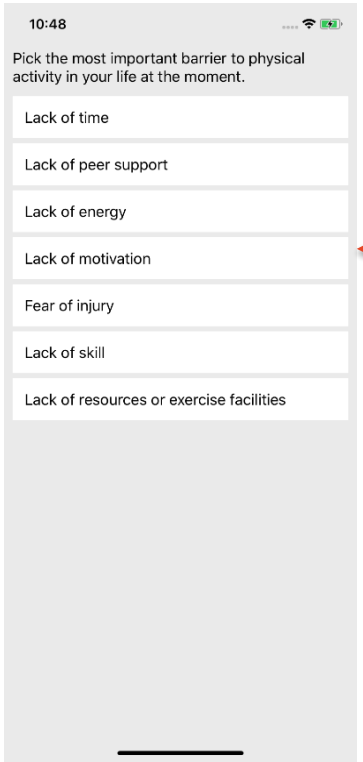


- Algorithm-derived
- Lack of user involvement

doi: 10.2196/mhealth.4160

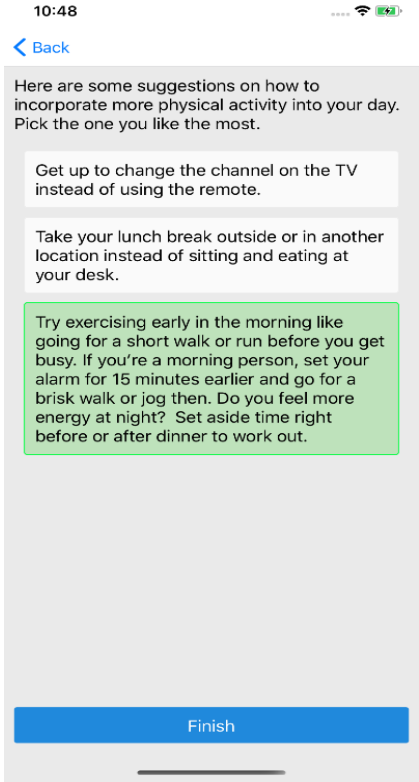
Background

HOW OUR BE.WELL APP ADDRESSES THESE GAPS



The personalised activity suggestion

Include users in the loop



Background

AIMS OF OUR STUDY

Test the impact of the be.well app on physical activity (i.e. daily step count)

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Methods

DATA COLLECTION & ANALYSIS

Methods: Pre-post, one-arm experiment for 2 months

Sampling: University students in Sydney, aged 18 to 30 years

Data collection: Daily step count for 1-month baseline, and 2-month study period

Analysis: Pairwise comparison, subgroup analysis

Outline

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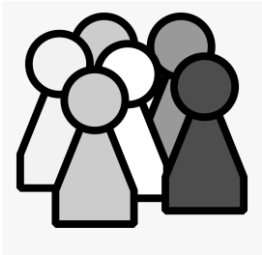
Results & Discussion

SAMPLE CHARACTERISTICS



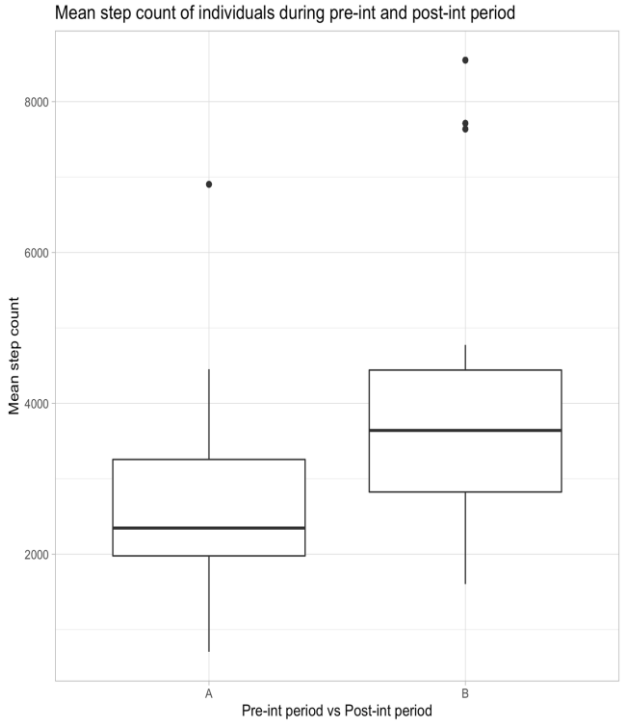
23

16

Mean = 22 years

Results & Discussion

CHANGES IN DAILY STEP COUNT



1346 steps/day

(p-value < 0.001, 95% CI 630 to 2018)

doi:10.1001/jamainternmed.2019.0899

Results & Discussion

SUBGROUP ANALYSIS

We know that on average, people increased their step count.
BUT… did certain groups benefit from the app more than others?

Results & Discussion

SUBGROUP ANALYSIS

Group	Median step increase	P-value (95% CI)
Overweight (BMI ≥ 25)	1323	0.02 (313, 2409)
Normal BMI (BMI range 18.5 – 24.99)	1648	0.375 (-290, 5136)

Overweight people increased their step count significantly, while normal BMI group did not.

doi: 10.2196/19991

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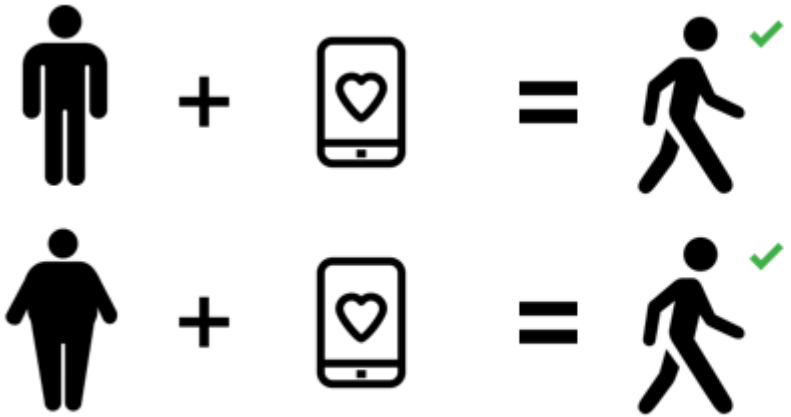
Conclusion

TAKE HOME MESSAGES



App increases overall step count

App has a more profound impact on overweight people

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