Differences in motives for running and perceived importance of app functionalities between fast and slow runners

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Introduction

• Lack of physical activity
• Encourage physical activity in inactive people
• Health and fitness apps >32700 (Yuan 2015)
• Apps not evidence based (Knight 2015; Middelweerd 2014)
Purpose

The purpose was to examine differences in motives for running and perceived importance of app functionalities between fast and slow runners.
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The purpose was to examine differences in motives for running and perceived importance of app functionalities between fast and slow runners.

Be able to develop customized apps/interventions
Methods

- Recreational running event 4 mile (n = 1,341)
- Online survey
  - Age (years)
  - Gender (M/F)
  - Experience with running (frequency per year)
  - Time to complete distance (minutes)
  - Motives for running (score 1 – 4)
  - Importance of app functionalities (score 1 – 4)
Analysis

- Comparison slowest and fastest runners
  1. Motives for running
  2. App functionalities
- Sex differences
- Mann Whitney tests
## Subject characteristics

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fastest Runners</td>
<td>Slowest Runners</td>
</tr>
<tr>
<td>N</td>
<td>N = 76</td>
<td>N = 56</td>
</tr>
<tr>
<td><strong>BMI</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underweight (BMI&lt;25)</td>
<td>6.6</td>
<td>0</td>
</tr>
<tr>
<td>(in %)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal weight</td>
<td>75.4</td>
<td>23.4</td>
</tr>
<tr>
<td>(19&lt;BMI&lt;25) (in %)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overweight (BMI&gt;25)</td>
<td>18.0</td>
<td>76.6</td>
</tr>
<tr>
<td>(in %)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mean ± SD</strong></td>
<td>Mean ± SD</td>
<td>Mean ± SD</td>
</tr>
<tr>
<td>Sport Frequency (n)</td>
<td>119.24 ± 59.66</td>
<td>88.42 ± 62.60</td>
</tr>
<tr>
<td>Age (years)</td>
<td>36.90 ± 11.10</td>
<td>45.80 ± 12.04</td>
</tr>
</tbody>
</table>
Results: Motives for running

Males

- Physical activity
- Improve physical fitness
- Improve physical health
- Being outside
- Fun activity/pleasure
- Improve mental health
- Relieve stress of daily activities
- A more beautiful or fitter body
- Performance, improve yourself
- Little/no traveltime needed
- Losing weight
- Having a good time with social contacts
- Not expensive
- Learn new skills
- Support of social contacts
- Competition, compare with others
- Respect/status

*Slowest runners* vs *Fastest runners*
Results: Motives for running

[Bar chart showing motives for running among males, with physical activity being the most frequent reason.]
Results: Motives for running

- Physical activity
- Improve physical fitness
- Improve physical health
- Being outside
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(Males)

Orange bars represent the slowest runners, and blue bars represent the fastest runners.
Results: Motives for running

Female Runners

- Physical activity
- Improve physical health
- Improve physical fitness
- Improve mental health
- Fun activity/pleasure
- Being outside
- Relieve stress of daily activities
- A more beautiful or fitter body
- Little/no travel time needed
- Performance, improve yourself
- Not expensive
- Losing weight
- Having a good time with social contacts
- Learn new skills
- Support of social contacts
- Competition, compare with others
- Respect/status
Results: Motives for running

**Females**

- Physical activity
- Improve physical health
- Improve physical fitness
- Improve mental health
- Fun activity/pleasure
- Being outside
- Relieve stress of daily activities
- A more beautiful or fitter body
- Little/no travel time needed
- Performance, improve yourself
- Not expensive
- Losing weight
- Having a good time with social contacts
- Learn new skills
- Support of social contacts
- Competition, compare with others
- Respect/status

**Graph:** Comparison between slowest and fastest runners.
Results: Motives for running

Females

- Physical activity
- Improve physical health
- Improve physical fitness
- Improve mental health
- Fun activity/pleasure
- Being outside
- Relieve stress of daily activities
- A more beautiful or fitter body
- Little/no traveltime needed
- Performance, improve yourself
- Not expensive
- Losing weight
- Having a good time with social contacts
- Learn new skills
- Support of social contacts
- Competition, compare with others
- Respect/status

* indicates a statistically significant difference between slowest and fastest runners.

Legend:
- Orange: Slowest runners
- Blue: Fastest runners
Results: app functionalities prior

- **Males**
  - Training schedule
  - Training tips
  - Route tips
  - Encouragement to train
  - Being part of a community/group

- **Females**
  - Training schedule
  - Training tips
  - Route tips
  - Encouragement to train
  - Being part of a community/group

- **Graphs**
  - Slowest runners
  - Fastest runners
Results: app functionalities during
Results: app functionalities during
Results: app functionalities after
Conclusion 1

- Most important motive for running for all groups is physical activity
- Losing weight more important for slower runners
- Competition with others more important for faster runners
Conclusion II

Prior
• Functionalities that provide information about how to train more important for slower females

During
• Stimulus to complete a training and advice on training more important for slower runners
• Basic speed information more important for faster runners

After
• Progression and PR’s more important for faster runners
Discussion

• Different groups want different information on different moments
• Information gathered on slowest runners might be translated to inactive individuals in order to motivate this group
• No one size fits all approach for apps
Take home message

Ultimate goal: develop evidence-based apps for stimulating physical activity in inactive individuals

Remember: No one size fits all approach for apps

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