MOTIVES FOR RUNNING AND PERCEIVED IMPORTANCE OF APPLICATION FUNCTIONALITIES: A COMPARISON OF FAST AND SLOW RUNNERS

All authors:
Joan Dallinga, Marije Deutekom, Cees Vervoorn, Matthijs Mennes, Harmen Bijwaard

Synopsis:
Motives for running and perceived importance of application functionalities were compared in fast and slow 4 EM recreational runners by using a survey. Moreover, by means of a follow-up survey we made a comparison of intention to engage in physical activity and how apps were used in these fast and slow runners.

Abstract:
Theoretical Background
Use of mobile applications (apps) is emerging in individual sports and may have the potential to stimulate physical activity (Glyn et al., 2014; Stephens & Allen, 2013). The question is which motives and app functionalities are important for less trained athletes to engage in running.

Aim
The first aim was to examine differences in motives for running and perceived importance of app functionalities between fast and slow runners. The second aim was to examine differences in intention to participate in running, how apps were used, and expected effects of app use between fast and slow runners six months after the run.

Methods
A cross sectional study was conducted to analyze differences between fast and slow runners on a recreational run. A random selection of 15,000 runners (of 54,000 participants) of a 4 and 10 EM recreational run (Dam tot Damloop) in the Netherlands was invited to participate in an online survey two days after the run. The following issues were addressed: age, sex, experience with running, time to complete distance, motives for running and importance of app functionalities. Based on their performance, the runners were divided into four

groups; the fastest quartile and slowest quartile were determined for each sex. In addition, six months after the run the same participants were invited to participate in a follow-up online survey. Based on a theoretical model, participants were asked about their intention to engage in physical activity and how they used apps (Ajzen, 1991). Attitudes, social norms and perceived behavioral control were addressed. For males and females, the fastest and slowest group were compared by using Man-Whitney tests. These analyses were conducted on the data collected two days after the run and on the data collected after six months.

Results
There were 4307 respondents (28%), of which 1341 were 4 EM runners. Compared to the fastest runners, the slowest males (n = 32) and females (n = 195) were older (45.49 ± 11.96 y vs 36.66 ± 10.56 y and 37.88 ± 10.50 y vs 32.12 ± 9.14 y respectively), more often overweight (BMI > 25, based on self-reported length and weight) (68.8% vs 15.9% and 69.9% vs 9.7% respectively) and performed sports less often (88.27 ± 56.63 vs 107.83 ± 58.15 times per year and 85.88 ± 58.78 vs 107.83 ± 58.15 times per year respectively).
For slower males, losing weight was a more important motive (p = 0.001), while for faster male runners competition was more important (p = 0.015). For slower females, losing weight (p = 0.001) and status (p = 0.048) were more important reasons. Competition, improving own performance (p = 0.001), relaxation (p = 0.024) and being outside (p < 0.0001) were more important reasons for faster female runners.
Faster males found monitoring speed (p = 0.023), heart rate (p = 0.002), progression (p = 0.004) and personal records (p = 0.012) more important app functionalities. Also, monitoring speed was more important for faster females (p = 0.005). Slower females valued training suggestions more (p = 0.011) as well as following a training schedule (p = 0.006), suggestions for running technique (p = 0.025), suggestions for development of training (p = 0.044) and stimulus to hold on (p = 0.029). Top three most important app functionalities for slower male and female runners were monitoring speed, monitoring progression, and retrieving route. Least important app functionalities for slower males and females were being part of a community, sharing activities with others and stimulus to train.
The results of the follow-up questionnaire were not yet available at the time of abstract submission, however these results will be presented at the conference.

Conclusion and Implications
Losing weight was a more important reason to participate in running for slowest runners. Additionally, slower females valued app functionalities that provide information about how to train and thought a stimulus to complete a training was more important. The slower runners were more often overweight and trained less often, characteristics that may be attributed to inactive individuals as well (Jebb & Moore, 1999). The results of this study may provide input for the development of an app for encouraging physical activity and enhance a healthy lifestyle for inactive individuals.

Contact: j.m.dallinga@umcg.nl

References:

Ajzen, I. (1991). The theory of planned behavior. Organizational behavior and human decision processes, 50(2),179-211.

Jebb, S.A., & Moore, M.S. (1999). Contribution of a sedentary lifestyle and inactivity to the etiology of overweight and obesity: current evidence and research issues. Medicine and Science in Sports and Exercise, 31(11 Suppl), S534-41.

Glynn, L.G., Hayes, P.S., Casey, M., Glynn, F., Alvarez-Iglesias, A., Newell, J., et al. (2014). Effectiveness of a smartphone application to promote physical activity in primary care: the SMART MOVE randomised controlled trial. British Journal of General Practice, 64(624), e384-91. doi: 10.3399/bjgp14X680461.

Stephens, J, Allen, J. (2013). Mobile phone interventions to increase physical activity and reduce weight a systematic review. Journal of Cardiovascular Nursing, 28(4),320-9. doi: 10.1097/JCN.0b013e318250a3e7