Smartphone fitness applications used by runners: For what reason?

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ABSTRACT

The aim of this study was to explore which smartphones applications features have most been appreciated by runners. This descriptive and exploratory study consisted of 278 respondents from Brazil and Portugal. A survey composed of demographic and closed questions was developed and distributed via social media. Findings revealed that 40.8% of the runners in Brazil prefer the "calories spent" as main feature, while also 40.8% of the participants in Portugal prefer the "heart rate control". The difference between the preferred features in Brazil and Portugal indicates that more cross-cultural research is needed to unravel the bio-psycho-social mechanisms that might explain why members of some groups have different opinions than other ones. **Keywords**: Smartphones; Applications; Physical activity; Runners.

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INTRODUCTION

Physical activity is defined as bodily movement that requires energy expenditure and includes physical activities done as part of daily living, occupation, leisure, exercise, and sports (Tenenbaum, Eklund, & Kamata, 2011). Physical inactivity has been identified as the fourth leading risk factor for premature death around the world, accounting for slightly over three million deaths annually (Middelweerd et al., 2014; World Health Organization, 2016), and running appeared as one of the favourite physical activities practiced around the world (Aroni et al., 2017). About the technologies, nearly two-thirds of Americans reported owning a smartphone (Pew Research Internet Project, 2015). A smartphone is defined as any cellular device that has additional functions including a camera, global positioning system (GPS), and Wi-Fi capabilities, and is running in one of the following mobile devices: iPhone, Android, BlackBerry, Windows Mobile and others (Bert et al., 2014; Ozdalga, Ozdalga, & Ahuja, 2012). Applications (apps) are downloaded from the platform to a mobile device and can be applied in various fields (e.g., social, entertainment, educational and fitness), and are often free and easy to use (Bert et al., 2014). Information technology companies and researchers have devoted attention to sports and physical activities to support people with new apps for indoor and outdoor use (Buttussi & Chittaro, 2008). In the present study, we were interested in exploring which smartphones apps features have most been appreciated by runners, understanding the reasons to download.

MATERIAL AND METHODS

Participants

A total of 278 participants responded to the survey via the use of social networks Facebook® and LinkedIn®. Participants were from Brazil (161) and Portugal (117), the inclusion criterion to participate in the study required participants to own a smartphone and have the running as main physical activity. The gender split was even across the two countries being sampled: Brazil (96 men – 59.6%, 65 women – 40.4%) and Portugal (76 men – 64.9%, 41 women – 35.1%). Although, five age categories were sampled (under 20; 21-30; 31-40; 41-50; above 51), the 21-30 age range comprised the vast majority of responses across the both countries: Brazil (118 participants – 73.2%) and Portugal (76 participants – 64.9%). Of the total participants, 203 respondents (73%) reported downloading at least one fitness app on their smartphone.

Measures

An informed consent section, presented immediately after the survey link was opened, informed to the participants of the purpose of the study, confidentiality terms and explained what would be required of them during the data collection. The survey was composed of four demographic questions (age, gender, country of residence and city of residence), four closed questions (type of physical activity, physical activity app ever downloaded onto smartphone, which physical activity app and which app features considered most beneficial in helping the physical activity). The survey was made available in the Portuguese language.

Procedures

The research was conducted according to the ethical research principles involving human subjects. Data collection commenced after obtaining approval from the Research Ethics Committee at UNESP (Campinas/SP - Brazil), number 1.202.685. The electronic survey was administered through Google Drive®. This free online service provides storage and file synchronization, which offers online solutions such as creating and editing documents, spreadsheets, presentations and surveys for research. As mentioned, the primary means of data collection was through social networks: Facebook® and LinkedIn®. Through the use of these engines the authors posted a message for runners to participate, and provided the link to the survey.

RESULTS AND DISCUSSION

About the runners, 113 respondents in Brazil (70%) reported downloading fitness app on their smartphones, in Portugal the total was 90 participants (77%). Results from the online questionnaire suggest that people that are "into exercising" are more prone to follow technological trends (Agarwal et al., 1998; Lu, Yao,& Yu, 2005).

Furthermore, runners in Brazil prefer the feature "calories spent" (40.8%) while the Portuguese the "heart rate control" (40.8%), related with the exercise goals (Troiano, Berrigan, & Dodd, 2008).

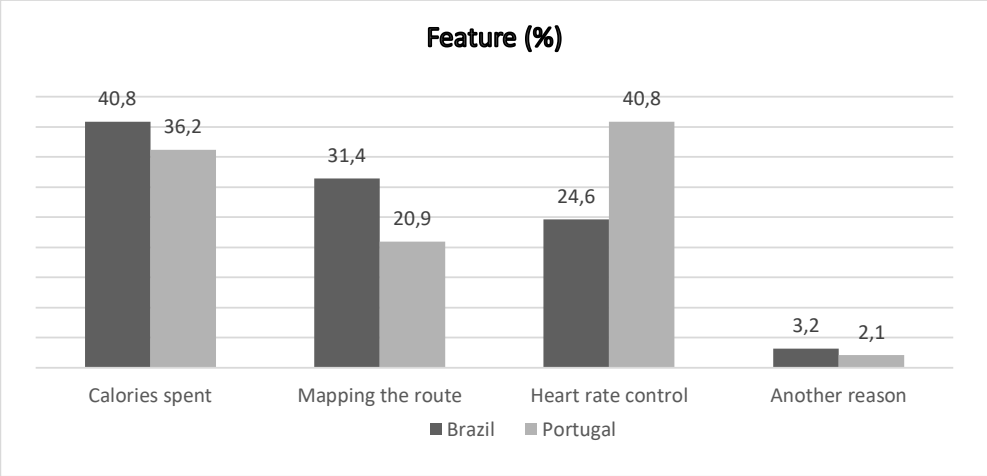

Figure 1. Preference about the applications feature.

CONCLUSIONS

The difference between the preferred features in Brazil and Portugal indicates that cross-cultural research is needed to unravel the bio-psycho-social mechanisms that might explain why members of some societies have different opinions than other societies.

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