Health and Self-Motivational Factors as Predictors of Marathon Runners Environmentally Friendly Behaviors

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Background
People attend as active participants in sport events (Ridinger, Funk, Jordan, & Kaplanidou, 2012). Marathons are one type of small-scale sport event that has had remarkable growth in the past decade (Ridinger et al., 2012). Marathons constitute a recreational activity that people participate in for many different reasons (Ridinger et al., 2012). The active participation in sport events contributes to the fight against physical inactivity that can create many health problems (Bauman, Murphy, & Lane, 2009). On a community level, the local small-scale sport events (e.g., marathons) constitutes a component of promoting healthy lifestyles within local societies in which the event will take place (Bauman et al., 2009). As a result, runners participate in sport events because of health and self-motives (Funk, Jordan, Ridinger, & Kaplanidou, 2011; Kilpatrick et al., 2010). Furthermore, many outdoor sport events depend on the natural environment in which they take place and the quality of that environment can directly affect participants’ experiences (Du Preez & Heath, 2016). Given the constant exposure of runners to the natural environment, not enough is known about the connection runners form with the environment. This is important to understand as more positive attitudinal connections about the environment may result in higher environmentally friendly behavioral intentions (EFBI) (e.g., donations toward protecting the environment) (Ajzen 1991). In Self-determination theory (SDT) has been discussed that perceptions of health risks were determinants of people’s engagement in specific environmental behaviors (e.g., recycling and activism) (Gardner & Stern, 1996; Deci & Ryan, 1985).

Literature Review and Hypotheses
Individuals are more likely to engage in EFBI’s if they know what to do and believe that they can make a change to an existing negative situation (e.g., environmental destruction) (Deci & Ryan, 2002). Deci and Ryan (1985) discussed that SDT may contribute significantly in the understanding about the environmentally responsible behaviors as it presents different cognitive, affective and behavioral consequences that relate with different types of motivation. Self-determined motivations were good predictors for pro-environmental behaviors (Pelletier & Bellier, 1999). If this is applied in the context of this study, people will be more active towards nature preservation, and to taking care of their health (Pelletier & Bellier, 1999; Pelletier et al., 1998). Combining SDT with personal investment theory, it can be suggested that people who invest for their health and self, they may also invest in other life and natural settings, such as the natural environment and its protection (Deci & Ryan, 1985; Maehr & Braskamp, 1986). This study aimed to investigate if people who participate in sport events motivated by health and self-esteem reasons, will engage in EFBI. Specifically, this study examined the influence of the aforementioned motives on, and the influence, of environmental attitudes on EFBI. The study hypotheses were: H1: Positive health will positively influence EFBI; H2: Ill-health avoidance will positively influence EFBI; H3: Self-esteem will positively influence EFBI; H4: Attitudes toward the environment will positively influence EFBI.

Method and Results
Data was collected from active sport event participants of a marathon event in Southeastern US using a web-survey which was sent to the whole event population (n=910 marathon runners). 171 responses were received, out of which 103 respondents had fully completed the web-survey. The response rate was 11.32%. For the measurement of the two motivational factors (positive health and ill-health avoidance) the Exercise Motivation Inventory-2 (EMI-2) was used (Markland & Ingledew, 1997), due to its previous application in a sport event context. Each of the EMI-2 variable (e.g., positive health and ill-health avoidance) was measured with four items that were evaluated on 7-points scale, where 1=Strongly Disagree and 7=Strongly Agree (Markland & Ingledew, 1997). Self-esteem was measured with two items also evaluated on a 7-point scale (Filo et al., 2011). Environmentally friendly attitudes and EFBI were measured with one item each, on a 7-point scale, where 1=Strongly Disagree and 7=Strongly Agree (Thompson &
The reliability of the scales (e.g., EMI-2) was examined using Cronbach’s alpha. Cronbach’s alpha values have to be more than 0.70 to show the internal consistency of a construct, when measured by two or more items (Hair et al., 2010). The reliability results were acceptable for all the constructs. To test H1–H4, hierarchical regressions were used with EFBI being the dependent variable and health motives inserted as block variables in step 1, self-esteem inserted in step 2 and environmental attitudes in step 3. This order in hierarchical regression analysis was followed based on literature, in order to observe if mediation effects will be presented in the subsequent analysis steps. The results for hypothesis one revealed that the effect of the positive health motive on EFBI was not significant (b = .16, p > .05). However, we observed a high beta coefficient. For hypothesis two the effect of ill-health avoidance was not significant either (b = -.19, p > .05). For hypothesis three self-esteem had a significant effect on EFBI (b = .24, p < .05). For hypothesis four environmentally friendly attitudes had an effect on EFBI (b = .22, p < .05).

Discussion and Implications
Taken together the results of H1 and H2, positive health and ill-health avoidance motivations were not significant predictors of runners’ EFBI. This is in contrast to SDT where health risks were found to be good predictors of environmental behaviors (Gardner & Stern, 1996; Deci & Ryan, 1985). Furthermore, for H3 it was found that runners motivated by self-esteem to participate in the marathon event, were willing to donate towards green initiatives. Based on SDT and personal investment theory this had a theoretical implication; as runners’ who are self-determined and invest for their self will be engaged in environmental behavior (Maehr & Braskamp, 1986; Deci & Ryan, 1985). In other words, people who take care of themselves will take care of the environment as well. Also, motivation as an inherent characteristic of a person, exhibited itself a strong prediction in a certain activity (e.g., donations) (Maehr & Baskamp, 1986). For H4 it was found that runners who had positive environmental attitudes, and were concerned about environmental issues, had positive EFBI (Ajzen 1991) supported the notion of the theory of planned behavior for the attitude-intention relationship (Ajzen 1991). Moreover, due to the steps of subsequent hierarchical regression analysis, it was observed that self-esteem presented a significant effect (p < .05) and increased its impact on EFBI (beta coefficient), when environmental attitudes was added in the model. This suggests mediation of environmental attitudes in the relationship between self-esteem and EFBI. Future research should explore the mediation effects of environmental attitudes; as based on Milbrath (1984) environmental concerns had mediated significantly individuals’ characteristics and environmental behaviors (Milbrath, 1984). Practically, the results suggest that athletes with awareness towards the environmental issues will donate. Sport event marketers should organize environmental education programs during the marathons, so runners will increase their knowledge as far as the environmental issues and they will be willing to donate towards them.