

Conclusions

The results suggest that both programs were feasible and well tolerated in this age group, but their benefits were not evident. Increased working memory was associated with decreased levels of reactive aggression. This study alerts to the need for further research focused on pre-schoolers' executive and socio-emotional functioning, particularly on the effects of interventions programs.

References

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Keywords

Executive functions, Mental health, Mind-body therapies, Psychomotor intervention.

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Impact of a 10 km race on inflammatory and cardiovascular markers: comparison between trained and untrained recreational adults

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Background

Previous studies have found that trained athletes had lower changes in circulating levels of inflammatory biomarkers and cardiovascular stress than untrained athletes, upon prolonged or exhausting exercise. Particularly, recreational runners with less training showed higher risk of cardiac injury and dysfunction after a marathon. Presently, we are observing a steadily growing number of young and older adults engaging in running events without having a professional orientation or training, emphasizing the need to assess biochemical markers that allow the evaluation of the acute changes imposed in these recreational athletes.

Objective

To compare the immediate and 24-hour effects of a 10-km run on inflammatory and cardiovascular biomarkers between recreational athletes, with and without specific running training.

Methods

18 recreational athletes (38.5 ± 14.5 years), 10 men and 8 women, were recruited and divided in a trained and untrained group. Venous blood samples were taken prior to the 10km race (48 hours before),

immediately after (within 30 minutes), and 24 hours after the race. The following biomarkers were analysed by slot blotting assay: vascular endothelial growth factor (VEGF), interleukin 6 (IL-6), high sensitive C-reactive protein (hsCRP), ghrelin, matrix metalloproteinase-2 (MMP-2) and MMP-9.

Results

The trained group completed the race in 50.3 ± 13.0 minutes per comparison to the 66.8 ± 5.6 minutes of the untrained group ($p = 0.003$). A significant increase in circulating levels of hsCRP, ghrelin, VEGF and MMP-9 was observed immediately after the race in both groups; the levels of these biomarkers returned to baseline 24h post-race. A significant increase in IL-6 was also detected after the race in both groups, which returned to baseline levels at 24 hours post-race in the untrained group. Regarding MMP-2 levels, a significant increase was detected after the race only in the untrained that returned to baseline levels at 24 hours post-race.

Conclusions

The impact of a 10-km race in the inflammatory and cardiovascular markers assessed in this study was different between recreational athletes, with and without specific training.

Keywords

Biomarkers, Cardiovascular system, Exercise, Inflammation, Running.

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The health of the informal caregiver of dependent person in self-care

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Background

Caring for a caregiver should be a constant concern and a responsibility of all health professionals, so that those who give care do not end up being uncared-for.

Objective

This correlational study had the following main aims: to assess the level and prevalence of burden of the informal caregiver of a person dependent in self-care; to determine the relationship between the levels of burden and the informal caregiver's perception of their level of competence to be a caregiver.

Methods

Participants in this study were 33 informal caregivers of self-care dependent-persons in at least one activity of daily living, to whom a structured interview was performed at the time of hospital discharge. The interview included socio-demographic and professional data, perception of the informal caregiver on their level of competence to be a caregiver, and the Portuguese version of the Zarit Burden Interview [1]. This study was approved by the National Data Protection Commission and the ethics committee of the hospital where the study was conducted (nº 24/2017).

Results

The majority of dependent-persons were female (60.6%) with a mean age of 81.6 ± 11.3 years old, with the majority being dependent on all self-care activities. The mean age of caregivers was 61.4 ± 12.1 years old, mainly females. The family relationship was mostly a son/daughter (39.4%) or a spouse (33.3%), taking care of the patient on average at 63.9 ± .93 months. It was possible to verify that all caregivers had previous experience of caregiving to a family dependent. We also verified that the 33 caregivers presented a mean of 53.9 ± 15.8 on the emotional burden scale (maximum possible value of 110) which corresponds to little burden. We can also mention that 30.3% of the caregivers present no burden, 30.3%, present mild burden and 39.4% present intense burden. Regarding the relationship between caregiver burden, we verified that higher levels of informal caregivers