

July 2004 - Paper of the month

Paper: Does life stress moderate the effects of a physical activity intervention?

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Main findings: In a randomized controlled trial of a physical activity intervention implemented over a 2-year period, this study assesses a treatment by stress level interaction on physical activity adherence in 338 university students. An interesting result from this study show some evidence that physical activity intervention was more effective among male students with high-stress levels, such that in the intervention group high-stress men were more active than low-stress intervention men at one year follow-up. The researchers did not find evidence to support the hypothesis that both men and women participants would decrease their physical activity in the presence of life stress.

Implications for policy, practice and research: Epidemiological evidence to date is indicative of the mental health benefits of physical activity. Some researchers hypothesize that exercise buffer the effects of daily stress caused by minor and major stress events; others postulate that life stress would interfere with physical activity. Although the dose-response and cause-effect issues relating to the psychological benefits of exercise still require further investigation, the potential value of exercise in reducing general symptoms of stress and anxiety is acknowledged with exercise often being recommended as part of a total lifestyle approach. From this paper, a number of key points can be gained that have policy, practice and research relevance.

- The psychological benefits of regular physical activity have the potential to be as important as the health benefits. Physical activity programs may be promoted on the basis of other non-physical health benefits by emphasising the value of moderate and vigorous physical activity as an effective stress management technique. The stress-relieving properties of physical activity may also be used as a complement to other strategies to promote a holistic approach to lifestyle change. This has relevance to the majority of the population who are faced with life's daily stress but who do not yet experience major chronic health problems. In such cases, regular physical activity can enhance psychological and emotional well being.
- Adoption and adherence to a physical activity regimen can be enhanced if physical activity is considered as a strategy to attenuate severe symptoms of stress and anxiety associated with daily distress.
- This paper reminds the readers that data on wider health and social impacts of physical activity other than chronic disease risks should be gathered, ie. impact of physical activity on quality of life, daily stress levels.
- The evidence from this paper is 'suggestive' of the role of physical activity in stress management, and intuitively may have stronger impact on young adults who would be more comfortable with their abilities to use exercise as a coping strategy. Further research should not dismiss the potential role of exercise in reducing stress among adolescents, women and older adults. Identifying the intensity level and type of physical activity that would match the specific physical and cognitive capabilities of these population groups would increase the values and attractiveness of regular physical activity.