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**RELATIONSHIPS BETWEEN  
EXERCISE, ANGER, HOSTILITY AND  
RESTING BLOOD PRESSURE IN WOMEN**

A thesis presented in partial fulfilment  
of the requirements for the degree of  
**Master of Arts in Psychology**  
at Massey University

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### Abstract

The present study investigated relationships between exercise, emotions of anger and hostility, and resting blood pressure. The investigation was based on a notion of 'physicality' which suggests exercise may be a source of physical and emotional empowerment for women. Recent studies reveal significant associations between exercise, components of anger, and blood pressure. The aim of the present study was to examine the possible relationship between exercise and emotions, and the possible roles of exercise as a mediating, confounding, and moderating variable in relationships between anger, hostility and resting blood pressure. One hundred and four female university students completed a questionnaire which included a measure of exercise, the Spielberger Trait Anger Scale and Anger Expression Scale, and the Cook-Medley Hostility Scale. Frequency of informal exercise was positively related to trait anger and anger temperament. Multiple regressions showed that exercise was not a mediating or confounding variable in relationships between anger, hostility and blood pressure. It did appear however, to moderate the relationship between anger expression and diastolic blood pressure. The effects of anger expression on blood pressure were also moderated by anger frequency and hostility. Blood pressure was not related to anger suppression or trait anger. It appeared that women who were more hostile were more likely to suppress their anger, as well as perceive situations as anger-provoking. Women who experienced anger frequently were more likely to use both modes of anger expression, while those women who perceived situations as anger provoking were more likely to suppress their anger only. The theoretical and methodological implications of the findings are discussed.

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