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• 計畫中文名稱	中年婦女身體活動型態、有氧功能、罹患心血管疾病危險因子及運動促進措施之探討(II)		
• 計畫英文名稱	Physical Activity, Aerobic Fitness, Cardiovascular Risk Factors and Exercise Promotion Interventions in Midlife Taiwanese Women (II)		
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• 中文關鍵字	心血管疾病危險因子; 運動訓練; 有氧功能; 體能活動; 婦女健康		
• 英文關鍵字	Cardiovascular risk factor; Exercise; Aerobic fitness; Physical activity; Women health		
• 中文摘要	<p>心血管疾病在台灣及美國均為病患死亡最主要原因之一，而女性罹患心血管疾病的危險性不但隨者年齡增加而升高，臨床上較容易出現非典型的症狀，對於心血管危險因子的覺察度亦較男性低，故針對女性心血管疾病危險因子的篩檢與防治措施也益形重要。本研究針對國內心血管疾病高危險群婦女之身體有氧功能，及心血管疾病危險因子進行探討，並分析門診規律運動訓練及居家步行運動計劃兩種不同運動促進措施，對於中年婦女心血管疾病危險因子及身體有氧功能之成效，研究對象為年齡介於 35 至 64 歲 之間，具心血管疾病危險因子之婦女。本研究將合乎收案條件之婦女，依隨機方式將其分配至運動組及控制組，並將運動 組之個案再以隨機方式分配至門診走步機運動訓練組及居家運動計劃組，並於研究計劃 前及計劃第 8 週，兩個階段重覆進行資料之收集。研究工具包括：人口學資料表、靜態 血壓、身體質量指標 (BMI)、血脂肪濃度和空腹血糖值之測量、及走步機運動測試。其中門診運動訓練計畫包括：每週 3 次、每次走步機運動 30 分鐘，共持續 8 週，運動強度是以個案最大心率之 60-80% (60-80% HRpeak)為運動標的心率。居家步行運動計劃內容為： 參與步行運動，每週 3 次，每次持續 30 分鐘，為期 8 週，同樣以個案最大心率之 60-80 % (60-80% HRpeak)為運動標的心率，對照組則維持原有生活型態。統計分析方法包括： 描述性統計法、卡方檢定、變異數分析 (ANOVA)、相關性分析、及二因子變異數分析法 (Two-factors ANOVA)。 研究期間共有 80 位婦女合乎收案條件：門診走步機運動組 18 人、居家運動組 23 人、及控制組 39 人。本研究之婦女之 BMI、收縮壓及血清總膽固醇濃度平均值有偏高 之現象，此外，是否停經與婦女血清總膽固醇及 LDL-膽固醇濃度具顯著相關性($r=0.24, p=0.03$; $r=0.29, p=0.01$)，參與門診走步機運動訓練之婦女有氧功能增加較居家步行計劃組及控制組之變化顯著，且 BMI 改善優於居家運動組，而居家運動組平均收縮壓降低有優於門診運動組之趨勢。然運動訓練措施對婦女血脂肪濃度及血糖值之改善並未呈現顯著之成效，故未來針對婦女之血脂肪濃度的改善、停經期婦女血脂肪濃度之變化及其相關因素，宜再深入進行研究加以探討。</p>		

- 英文摘要

Cardiovascular disease is one of the major causes of death both in the United State and in Taiwan. Comparing to men, women may be at particular risk for cardiovascular diseases because of atypical symptoms, less risk awareness, and post menopause status. The screening of cardiovascular risk factors and prevention of cardiovascular disease in women merits further exploration. The purpose of this study is to explore the effect of two different exercise training modules (treadmill exercise in clinics and home-based walking exercise) on cardiovascular risk factors and aerobic fitness on the high-risk women between the ages of 35 and 64 years. Eighty participants were randomized into either exercise group or control group, and the subject in the exercise group was further randomized into either treadmill group or walking group. There are 18 subjects in the treadmill group, 23 in the walking group, and 39 in the control group respectively. The schedule of the treadmill group was walking on treadmill 30 minutes in a clinic to achieve 60-80% maximum heart rate, three times a week for eight weeks. For the walking group, participants were instructed to walk 30 minutes in their neighborhood to achieve 60-80% maximum heart rate, three times a week for eight weeks. Data were collected on the initial of the study and the 8th week of the study. We measured the basic demographic data, resting blood pressure, body mass index (BMI), blood cholesterol, fasting blood sugar, and treadmill test. Descriptive analysis and inferential analysis including chi-square, ANOVA, correlation, two-factor ANOVA were used for data analysis. The findings of the study suggest that women have significantly higher mean values on the body mass index, diastolic blood pressure (DBP), and serum total cholesterol level. There are significantly relationships between menopause status and the values of serum total cholesterol ($r=0.24$, $p=0.03$) and LDL-cholesterol ($r=0.29$, $p=0.01$) levels. The aerobic fitness of women in the treadmill group was significantly improved comparing to the walking group and the control group. The improvement in BMI of the treadmill group was better than those of the walking group. In addition, the walking group had a significantly lower DBP than those in the treadmill group after the 8-week program. The values of blood lipid and fasting blood sugar were not significantly changed after the exercise training. Further studies are needed to explore their relationships.