

Evaluation of the Exercise intervention on Physical Fitness and Exercise Behavior

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Abstract

The purpose of the study was to evaluate the effect of different exercise intervention on physical fitness and exercise behavior. Method : The study was a Single-blinded randomized controlled trial from 2 groups with 207 subjects; they were randomly assigned into an *exercise intervention* group or an information group. Participants in the *exercise intervention* group performed an face to face *exercise class* once a week for 3 months. Participants of the information group received handbills, compact disc 6 times during 3 months. The measurements of *physical fitness* included body composition, static balance, flexibility, muscle strength, muscle endurance and cardiovascular endurance. Physical activity, perceived self-efficacy, perceived benefits of action, perceived health status, exercise cognition were used to evaluate the exercise behavior by descriptive visual rating scales. The statistical analysis were used Paired-t test and Linear structural relationship (LISREL). Result: There were significant improvement of exercise cognition, muscle endurance and body composition both groups ($p < .05$). A significant increase in Stage of exercise action change perceived self-efficacy, perceived benefits of action, perceived health status, exercise cognition, static balance, and flexibility ($p < .05$). Exercise status is directly influenced by Health exercise behavior and physical fitness. Conclusion: The short physical exercise intervention had effect on physical fitness and exercise behavior. Exercise behavior is more important than physical fitness for change the exercise status.

Key words: exercise intervention, physical fitness, exercise behavior,

Background

Community-based health promotion is one of the important means by which this community action is implemented within Healthy Cities initiatives. A substantial body of scientific evidence that indicates regular physical activity can bring dramatic health benefits to people of all ages and abilities, with these benefits extending over the lifespan. Physical activity offers one of the greatest opportunities to extend years of active independent life, reduce disability, and improve the quality of life for midlife and older persons. Exercise intervention is an effective policy for promoting a healthy community.

Purpose

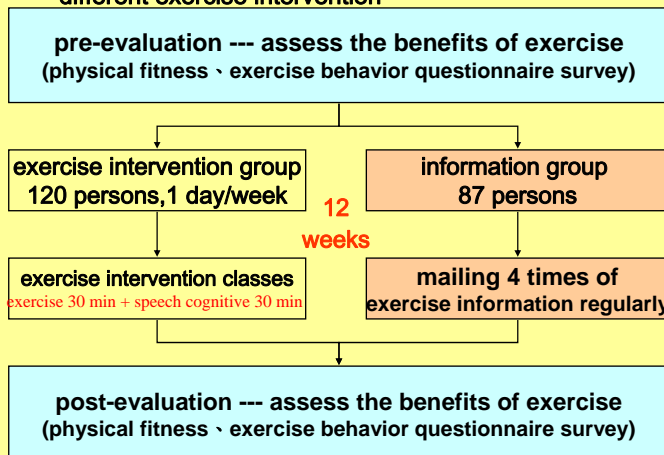
To evaluate the effect of different exercise intervention on physical fitness and exercise behavior in urban community.

Method



Independent variables

— different exercise intervention



Dependent variables

- **Socio-economic data** : 1. Age group 2. Gender 3. Educational status : highest qualification gained 4. Occupation : from which socio-economic group was derived 5. Martial status.
- **exercise behavior** : 6. Physical activity 7. Perceived self-efficacy 8. Perceived benefits of action 9. Perceived health status 10. Exercise cognition.
- **physical fitness** : 11. Body fat 12. Body mass index 13. Balance 14. Flexibility 15. Strength 16. Muscular endurance 17. Cardiovascular fitness

Result

Table 1 The change of perceived self-efficacy

Perceived self-efficacy	Exercise intervention		Information intervention	
	n	p-level	n	p-level
Regular physical activity /when I'm bus	120	0.012*	87	0.812
Regular physical activity / when the exercise place is far away	120	0.039*	87	0.237
Regular physical activity/ when something is fun	120	0.521	87	0.109
Regular physical activity /when I'm lazy	120	0.065	87	0.624
Regular physical activity /when I'm alone	120	0.389	87	0.657
Regular physical activity/ when I feel bad	120	0.060	87	0.160
Regular physical activity /when I don't feel the outcome of exercise	120	0.017*	87	0.765
Regular physical activity /when the weather	120	0.159	87	1.000
Regular physical activity when I'm tired	120	0.476	87	0.453
total score	120	0.022*	87	0.721

The change of Physical fitness

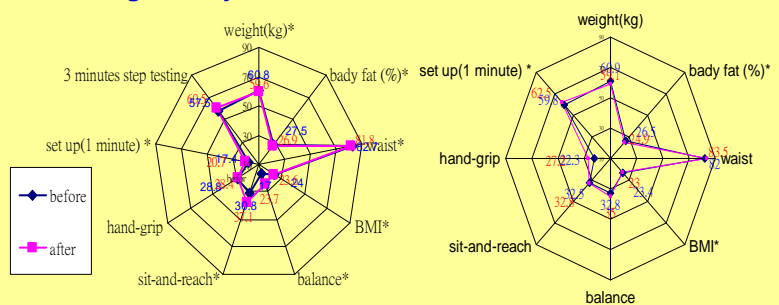
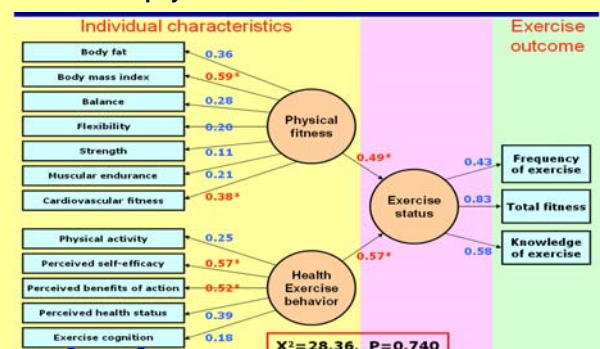


figure 1 Exercise Intervention Group, * $p < .05$ figure 2 Information Intervention Group

The face to face lesson intervention of "exercise for life" will help improve the physical activity, perceived self-efficacy, perceived benefits of action, perceived health status, and exercise cognition. (table 1 · figure1). Information intervention is budget saving but the effect for change exercise behavior is not as effective as the face to face intervention. (table 1 · figure2)

Model of the effect of physical fitness and exercise behavior on exercise status



Conclusions

Exercise behavior is more important than physical fitness for change the exercise status.