

An Evaluation of the Health and Recreational Benefits Of Scottish Country Dance

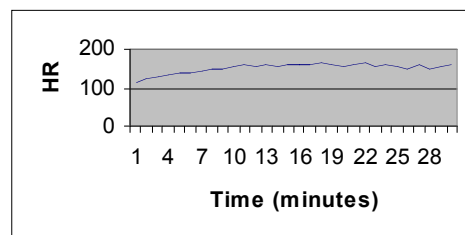
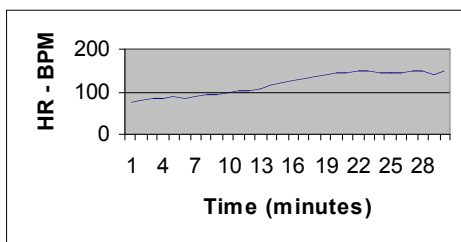
Traditionally, when evaluating the health benefits of an activity, health is associated with the modern concept of physical fitness. Aerobic demand, strength, flexibility, lactic acid tolerance, and coordination could all be called upon to denote a 'healthy' activity.

The purpose of this paper is to evaluate the health benefits of the recreational activity known as Scottish Country Dance (SCD) both from a fitness perspective and in terms of other positive health outcomes.

Individuals of all ages participate in the high stepping and rhythmical dances of SCD. Remarkably, few if any formal studies have been done to measure the fitness specific training benefits directly. Such are the vagaries of modern athletic investigation. Fortunately similar activities such as square dancing and 'folk dancing' of other sorts, which compare closely with Scottish Country Dance, have been directly measured from a scientific perspective. In a report of the energy costs of square dancing, Jette and Inglis (1) measured the energy demand to be 5.2 and 5.7 kcal/min per kg of body weight for a 60 kg woman and 70 kg man respectively, with an average of between 390 – 425 kcal expended in a typical dance session. The American College of Sports Medicine (2) states that a workload of this amount would result in an aerobic benefit in the "above average" category for the typical adult. Square dancing typically lacks the 'hopping' and other footwork requirements of Scottish Country Dance and therefore it is safe to say that it would under estimate the energy demands of the latter. For comparison purposes, other common athletic activities with equivalent kcal/min energy costs are recreational badminton and golfing while carrying you bag (3).

In a paper entitled 'Physical Demands during Folk Dancing', Wigaeus and Kilbom (4) measured the aerobic demand of a Scandinavian dance called the "hambo". The hambo is described as a 'Swedish waltz' with complicated footwork similar to SCD and therefore would compare favourably with Scottish Country Dance. Heart rate responses of between 70 and 90% of maximum aerobic capacity were recorded for men and women respectively.

For the purposes of this paper a Polar heart rate monitor was used to directly measure the heart rates of two participants engaged in Scottish Country Dance, and while the measurement conditions do not constitute a formal scientific study they are indicative of the demands of the activity. The following graphs show the heart rate responses for a 10 year old female and a 54 year old female during the first half hour of a Scottish Country Dance instructional class. Both subjects demonstrated heart rate responses well within the 'training zone' necessary to create a cardiovascular training effect.



However heart rate response is only a small part of the health benefits which can be attributed to Scottish Country Dance, and the benefits of this sort of physical activity have come to include the prevention of harm from chronic diseases and the reduction of mental stress.

In reference to the role of exercise in weight regulation, King and Tribble (5) in the journal Sports Medicine identify that, "Developing programmes to aid in long term adherence to physical activity regiments remains the most critical challenge." Dance activities such as SCD are particularly effective due to the enjoyment factor which motivates the participant's continuing involvement. The participant perceives the activity as play, not work!

Diabetes, heart disease, colon cancer, and arthritis have all been shown to respond favourably to regular moderate exercise, and the cognitive demands of SCD dance movements combined with their coordination with the participant's fellow dancers, create a situation in which the dancer's mental faculties are exercised and therefore contribute to the prevention of degenerative conditions such as Alzheimer's disease and dementia (6).

In conclusion, the health and fitness benefits of activities such as Scottish Country Dance is measurable in an absolute sense (heart rate response), while contributing to the well-being of the individual through the prevention of chronic conditions due to inactivity. They also have a social component which maintains a sense of community and an enjoyment factor which encourages their continued participation for the sake of the dance itself.

Mike Erison B.P.E.
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Bibliography

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