

Independent Study Title	A Study to Determine the Effects of Arm Swing Exercise and Hula Hoop Exercise on Persons at Risk of Dyslipidemia Disease
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ABSTRACT

The objective of this study was to compare the effects of arm swing exercise and hula hoop exercise on lipid profiles in persons at risk of dyslipidemia disease. A total of 50 participants at risk of dyslipidemia disease aged 25-50 years were randomly assigned to arm swing exercise (ASE) group (n=25), and hula hoop exercise (HHE) group (n=25). ASE and HHE training programs were designed to yield the same energy expenditure/exercise sessions and included performing for 30 minutes/day, 3 times/week for 8 weeks. The ASE and HHE in this study were designed to be moderate aerobic exercise for individual. Lipid profile variables between pretest and posttest were analyzed by paired t-test. Independent t-test was used to compare the variables among groups. Differences were considered to be significant at $p < 0.05$. The results of the present study were as follows: levels of cholesterol, triglyceride, HDL, and LDL in both the ASE and HHE groups were not significantly different when compared with pretest results. For the ASE group, there was no significant difference in the levels of cholesterol ($p=0.81$), triglyceride ($p=0.25$), HDL ($p=0.44$), and LDL ($p=0.46$). For the HHE group, there was no significant difference in the levels of cholesterol ($p=0.34$), triglyceride ($p=0.16$), HDL ($p=0.30$), and LDL ($p=0.20$). It was concluded that arm swing exercise and hula hoop exercise cannot improve lipid profiles in persons at risk of dyslipidemia.

However, arm swing exercise and hula hoop exercise can reduce percent body fat for persons at risk of dyslipidemia. Percent body fat in both the ASE and HHE groups decreased significantly when compared with pretest Valued: ASE ($p<0.001$) and HHE ($p<0.001$). Although arm swing exercise and hula hoop exercise cannot improve lipid profiles, both exercises can reduce percent body fat for persons at risk of dyslipidemia.

Keywords: Arm Swing Exercise/Hula Hoop Exercise/Dyslipidemia

