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Comparison of Auditory Response Time in Physically Active and Non-Active Type 2 Diabetics

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Abstract

Aim: To study the auditory response time of physically active type 2 diabetics and non-active type 2 diabetics. **Materials & Method:** The study was conducted on 30 physically active type 2 diabetics (age 46±3 years) and 30 physically non-active type 2 diabetics (46±3 years) males. Response Analyzer (audio-visual response time instrument) was used to measure the auditory response time. The stimulus was given by the buzzer and subject was required to response to the stimulus by pressing an appropriate button. **Result:** Audio 1 (1.08 ± 0.46 ms), Audio 2 (1.05±0.42 ms), Audio3 (1.08±0.40) ms, Audio 4 (1.11±0.39 ms) and combined auditory response time (1.08±0.33 ms) of physically active type 2 diabetics and Audio 1, Audio 2, Audio3, Audio 4 and combined auditory response time of physically non-active type 2 diabetics was 1.02 ± 0.31 ms, 1.11±0.44 ms, 1.18±0.58 ms, 1.27±0.52 ms, 1.14±0.37 ms respectively. **Conclusion:** It was concluded that the auditory response time was delayed in non-active type 2 diabetics than physically- active type 2 diabetics.

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Introduction

Physical inactivity and Obesity independently contribute to the development of type 2 diabetes; however, the magnitude of risk contributed by obesity is much greater than that imparted by lack of physical activity. It knows that physical training has positive effects on reaction time (Davranche et al., 2006 and Little and Williams 2005). Physical activity contributes to several positive effects on both physicaland mental health (Blair et al., 2001; Hallal et al., 2006).Obesity and physical inactivity are well-known risk factors for the development of type 2 diabetes (Chan JM et al., 1994 – Hu FB et al., 1999). A