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Abstract

The before/after study of physiological and biochemical parameters was used to delineate the effects of VDT data entry work on operators. Twenty-nine healthy Chinese students were chosen and divided at random into the simple and the complicated data entry group. The subjects were instructed to work as quickly and correctly as possible according to the 'Data Entry Work Programme' for 150min. Work performance (correct entry) was automatically recorded once every 10min. The before/after parameters were tested respectively. The results showed that performance fluctuated over time. It decreased obviously after 50–60 min of work, followed by a rebound, and there was a terminal motivation phenomenon at the end of the test, which was associated with the auto-arousal and cerebral compensatory effort. Changes in physiological parameters revealed that operators were fatigued after data entry work. The adrenaline excretion in urine showed a tendency to increase after simple data entry work. The noradrenaline excretion showed a tendency to decrease after complicated data entry work. The differences in performance, diastolic blood pressure in a standing position and neurobehaviour between two groups indicated that much stress was experienced when performing complicated data entry work.