AJHS
Asian Journal of Home Science
Volume 7 | Issue 1 | June, 2012 | 53-54

Research Paper

Assessment of muscular and postural stress among handicapped college going girls

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Received: *10.10.2011*; **Revised:** *01.02.2012*; **Accepted:** *03.04.2012*

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ABSTRACT : The study was conducted with an objective to assess the muscular and postural stress among handicapped college going girls. The sample of 60 students from undergraduate level were selected randomly from Ambedkar Institute of Handicapped in Kanpur district. Results revealed that muscular stress was found greater in right hand than in left hand. Thus, the grip strength increased at writing than in reading. The change in the postural frequency while sitting and working with wooden study table and chair was found more. Thus, it is difficult to maintain any particular posture for a long period of time due to fatigue resulting from static muscular effort. Angle of deviation in posture measured by flexi curve showed that while reading the angle of deviation of lower back was 40^0 and upper back 36^0, whereas while writing the angle of deviation of lower back was 50^0 and upper back 46^0. Thus angle of deviation while writing was found more than reading.

KEY WORDS : Fatigue, Posture, Handicapped girls

HOW TO CITE THIS PAPER : Dayal, Rekha, Singh, Shailja, Sharma, Supriya and Singh, Poonam (2012). Assessment of muscular and postural stress among handicapped college going girls. *Asian J. Home Sci.,* **7** (1) : 53-54.

Disability as a handicap is suffering from continuing in capacitation of the body, intellect or personality, which is likely to interfere with an individual's normal growth, development or capacity to learning (Hugh, 1981). It was observed that disease such as polio, meningitis, leprosy and muscle among other can cause limb deformities or paralysis. In the present study emphasis has been given to partial disabled children their seating posture and the special type of school furniture which they need to read, writer or listen to the lectures delivered at school institute. Inspite of various efforts carried out by many Government and non-government organizations on problems of handicapped girls, they face in their daily life are ignored, like adjustment with the working environment in which they work for 5 hrs with strain.

RESEARCH METHODS

The descriptive data were gathered personally by using interview method. Sample of 60 handicapped girls were selected for the present study. Purposive sampling design was used to select the study area and respondents. The collected data were tabulated and analysed with the help of subjective (frequency, percentage, mean and S.D.) and rational statistics (coefficient correlation, score and rank).

RESEARCH FINDINGS AND DISCUSSION

It is portrayed in the Table 1 that 17.7±13.3 mean of strength of the muscles was trend more in rest in right hand than at work that was 12.4±12.2 followed by the mean 17.0±12.9 of the strength of the muscles was found more in rest in left hand while than at work that was 12.3±11.8. So, the percentage grip strength of right hand was found more (24.7%) than the left hand (23.8%) while reading .

It is evident from Table 2 that maximum postural changes during work of reading and writing was found for sitting back on chair with average value of 6.5 ± 2.5 followed mean value 6.1±2.5 for legs stretched forward and mean value 6.0±2.4 was found in legs flexed at 90° at knee, whereas mean value 5.8±2.6 was found in sitting forward on chair and mean values of