

A QUASI EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS REGARDING BODY MECHANICS AMONG SCHOOL CHILDREN

Mrs. RACHANA ABRAHAM

PhD. Scholar, JJTU Jhunjhunu, Rajasthan
Associate Professor, GCON, Bilaspur (C.G.)

ABSTRACT

The motivations behind this pilot think about where to look at the working position of centre school youngsters amid their media/innovation class, test understudy's learning of sound figuring propensities, and assess the adequacy of school kids. Low back agony (LBP) is a typical musculoskeletal issue which is for the most part connected with the ergonomically mistaken working conditions. In this way the motivation behind this investigation was to survey the mindfulness about back care disciplines among secondary school kids in Kandy zone, Sri Lanka. A cross sectional examination was directed in Kandy zone, Sri Lanka to contemplate the mindfulness about back care disciplines among secondary school level Sinhala medium science understudies. 815 High school level Sinhala medium science understudies age between 17-18 years were asked for to finish a 13 thing poll comprised of pictures identified with right and wrong back orders in different day by day exercises. Out of 815, 776 understudies were finished and restore the survey with the reaction rate of 95.2%. 70% of the understudies were uninformed about the right back train while washing fabrics physically and the greater part of the understudies (52%) were ignorant about right rucksack conveying discipline. Moreover 77% of the respondents were unconscious about the right resting technique for side lying stance with head upheld by a cushion. The holes in mindfulness with respect to back care trains in day by day exercises of standing, dozing conveying rucksack and conveying a weight are existed among the secondary school level understudies and more incorporated educating in regards to this should be presented.

Keywords: Awareness, Health issues, Lack of knowledge.

INTRODUCTION

Numerous youngsters conveying packs over only one shoulder or low on their backs. This enormously builds the danger of agony and damage. Neighbourhood specialists have requested that schools watch that rucksacks are not overweight and are worn legitimately and over the two shoulders. Understudies of all levels, convey a schoolbag pressed with course book, scratch pad, library books, geometrical and mathematic instruments snacks boxes lunch packs and water containers et cetera. The knapsack is one of the few types of manual load carriage that gives flexibility and regularly utilized by climbers' explorers, officers, and additionally by school kids. The knapsack is a fitting approach to stack the spine intently and symmetrically, while looking after steadiness. Body mechanics" is a two-word state used to portray the developments we make every day amid typical exercises, incorporating lying in bed, sitting, standing, lifting, pulling, pushing and strolling. Body mechanics can be both great and awful and can affect

back torment. Great body mechanics will help cure and avert future back issues, while terrible body mechanics add to back issues and other muscle and bone issues.

Level of Awareness of body use in school children

Low back pain (LBP) is a typical patient grumbling where pain experienced in the lumbo sacral spinal and para spinal areas, including the rear end and upper thigh¹. Late investigations have demonstrated that the lifetime pervasiveness of low back agony is high as 84%, and the predominance of incessant low back pains around 23%, with 11-12% of the populace being disabled². Heyman, 2009 has announced that the musculoskeletal inconvenience and back agony issues are apparent grown-ups and children³. It has detailed that pervasiveness of low back pains higher among young ladies than young men and expanded with age in both sexes⁴. Back agony issues are essentially connected with the ergonomically off base working conditions requiring tedious hard work and equipment⁵. The greater part of such undertakings are modifiable and an overview led by the North American Spine Society (NASS), has detailed that 42.6% of NASS part doctors have treated youngsters or adolescents experiencing back agony or spine injury caused by overburden or despicably utilized rucksacks. Ttriguerio et al., 2012 has demonstrated the multi factorial etiology of low back pains blend of school nonattendances, parental torment, dozing challenges, unseemly school furniture and postural deviations at the sagittal and frontal planes⁶. However such side effects in adolescence, especially as they are so normal, may have vital results for

incessant low back agony in adulthood which can prompted a blast in costs. The circumstance in Sri Lanka likewise same to alternate nations and late examinations have discovered that the most elevated commonness of musculoskeletal issue is low back pain among working populace in Sri Lanka⁷. Moreover Jayaratne and Fernando has discovered that the prevalence of low back pain among schoolchildren is 24.4% which influenced to their scholarly execution and school attendance⁸. It is fitting to remain by stand tall with the chest lifted up and out, stomach muscles pulled in and base in and sitting with hips somewhat higher than knees without intersection legs to diminish low back strain. The right stance for coming to is remain on a stool to achieve things that are over the shoulder level. We trust that reasonable picture towards an adjusted stance, body function and development designs, and their ergonomic ramifications, can limit and even keep these issues. Such an ergonomics mindfulness instructive program needs to begin at adolescence and ought to be an indispensable piece of the educational modules in the schools. Consequently in this examination the centre concentration was to investigate the back care teach mindfulness among secondary school kids in Kandy zone

PURPOSE OF BODY MECHANICS

- Proper body mechanics can improve posture.
- Body mechanics involve how parts of the body function to coordinate motion and to maintain equilibrium.

- Body mechanics promote good posture and healthy muscles.
- Proper body mechanics can make you more comfortable and aid in routine actions such as sitting and standing. They can also prevent muscular deformities.
- An important aspect of body mechanics is posture, which is defined as the relationship between the parts of the body while in motion or at rest.
- Good body mechanics should be practiced in several areas. Walking, standing, sitting, lying and lifting are all regular daily functions that should be done properly to prevent injuries.

Research Aims

This study will record postural behavior in normal lessons using a previously validated observation method. Identify the extent of neck pain, upper back pain and low back pain experienced by 1st class to 10th class schoolchildren, and establish the relationship between sitting posture and pain in these spinal locations.

Body Mechanics Principle

Improper sitting posture increases the risk of damage to the body.

It is necessary to educate school children at the start of their training on the use of the body mechanics principle.

The use of the body mechanics principle could reduce clinical-

practice fatigue, and increase practice satisfaction.

It is also necessary to consistently educate nursing students on the use of the body mechanics principle.

ERGONOMICS FOR SCHOOL CHILDREN IN CLASSROOM

- Every office place of work must provide ergonomic surroundings
- A school is a place of work
- A lot of different work is performed in the classroom and a workstation must be provided for each type of work

School bags

The examination plans to recognize the degree of back torment experienced by 11–14 year old schoolchildren, and set up the power, length and recurrence of introduction to physical hazard factors exhibit in schools. This paper considers the sitting stances of schoolchildren in the classroom. The sitting stances of 66 youngsters were recorded in typical lessons utilizing the Portable Ergonomic Observation Method (PEO). The investigation discovered noteworthy relationship between flexed stances and low back torment. Static stances and neck and upper back torment were additionally related. This investigation has suggestions for schools, planners and individuals in the field of business related musculoskeletal issue. Additionally inquire about is required to look at the relationship between sitting stance and torment announced at various spinal areas. Conveying schoolbags may add to low

back torment in youngsters. The most extreme load ought to be 15% of body weight. Optional school youngsters bear rucksacks 7.0kg. High school understudies bear knapsacks 6.3kg

Choosing the right school bag:

- ensure the bag is appropriate for the age and size of the carrier
- select a pack with padded shoulder straps
- choose a bag with a waist belt
- carry no more than 15% of body weight
- load heaviest items closest to the child's back
- choose backpacks with several compartments
- consider a bag with wheels
- always wear both shoulder straps
- adjust shoulder straps so the bag fits snugly to the back

Furniture

The upright position calls for an excess amount of muscle. Adjustable furniture is preferred, due to the different dimensions of the body

Computers

Musculoskeletal discomfort increases with the amount of hours spent on the computer exertion.

Using backpacks correctly

- Pack light
- Organize the backpack to use all of its compartments

- Where appropriate, stop often at school lockers and remove unnecessary items
- Keep a second set of books at home if possible.

CONCLUSION

Carrying backpacks increases the risk of back pain and possibly the risk of back pathology. The prevalence of school children carrying heavy backpacks is extremely high. The daily physical stresses associated with carrying backpacks cause significant forward lean of the head and trunk. It is assumed that daily intermittent abnormal postural adaptations could result in pain and disability in school going children. American Occupational Therapy Association (AOTA) and the American Academy of Paediatrics advise that students should carry no more than 15% or 10-20% of their bodyweight. Although more research in this area is warranted, it appears that education regarding correct positioning at computer workstations combined with instructing students on the importance of overall healthy posture may foster correct positioning at school children.

References:

1. *Classroom posture and self-reported back and neck pain in schoolchildren*, Sam Murphy, Peter Buckle, David Stubbs, *Applied Ergonomics* 35 (2004) 113–120.
2. <https://www.ncbi.nlm.nih.gov/pubmed/12441570>
3. <http://www.sciencedirect.com/science/article/pii/S2352900816300127>
4. *Level of Awareness of body use in young people* Thusharika Dilrukshi Dissanayaka, *International Journal of Scientific and Research Publications*, Volume 4, Issue 4, April 2014 1 ISSN-2250-3153.