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A Descriptive Study to Assess Low Back Pain on Using Heavy School Back Pack Among School Children in Selected Urban School in Jodhpur with View to Develop Information Booklet on Prevention and Management of Back Pain

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A B S T R A C T

Back pain is becoming a common health problem in children and carrying heavy backpacks increases the risk of chronic back pain, children must be taught not to get backpacks heavy and also shown the correct way of carrying them. Any persistent back pain complained by children, even without lifting anything heavy, should be evaluated by medical profession, as it could be due to some serious health issue with muscles or vertebrae in the back or internal organs.1

Back pain is a currently a health problem of school children which can limit daily life activities. Sedentary life style is possibly the most important factor determining back pain among school children. According to the 2006 Spanish National Health Enquiry 11.8% of student aged 9 to 13 classified themselves as sedentary.2

Sedentarism along with lack of physical activity contribute to a lower muscular tonicity of the back. Some studies have shown that an individual with back pain in children more likely to develop low back pain in adolescents life or that heavy backpacks can cause neck, shoulder, and back muscular problems, such as scoliosis. Experts recommended that school children should not carry loads exceeding 10% of their body weight.3

Conceptual frame work-The theoretical framework for the present study is developed from Noel. J. Pender's health promotion model.

Research design-For the present study, a descriptive design was adopted as it is a virtue of a situation that naturally happens. In many aspects of nursing there is a need for a clear picture or description of the phenomena before causality can be examined.

A quantitative descriptive design was adopted in the study. The population Assess low back pain in school children in Firoz Khan Memorial Senior Secondary School, Jodhpur. A sample size of 80 school children was selected using convenient sampling. A structure questionnaire was adopted by the investigator for data collection. The tool structured knowledge questionnaire is validated by experts. Reliability of the tool was done using Karl Pearson (Co-relation, co-efficient) formula and it was found to be significant i.e. for structured knowledge question (r =0.76).

Finding of the study indicates that assessment of low back pain by using FLACC Pain Assessment Scale ,scoring the majority 42.5% of school children feeling low back pain moderately, and 40% of school children feeling low back pain are mild discomfort pain, and 15% of school children are relaxed and comfortable or no feeling low back pain and remaining 2.5% of school children feeling severally suffering from low back pain during carrying their school backpack.

Significant finding of the study-The finding is significant are age (12.59), gender (9.854), weight of back pack (17.826), Body weight of school children (17.792) and time duration spending carrying their backpack from school to home and vice versa (25.392).

Keywords: Backpack, School Children, Low back pain and Information Booklet.

INTRODUCTION

Every school year millions of children walk to, from, and around school carrying backpacks filled with books and materials. Parents should be aware that overly stressing the back with a heavy backpack could cause back pain in their child. Following the few guideline and using common sense can help avoid this type of back pain. The back pain compensate of any load applied to it for an extended period of time. Distort the natural curves in the middle and lower backs, causing muscle strain and irritation to the spine joints and rib cage. Lead to rounding of the shoulders a person to lean forward, reducing balance and making it easier to fall habitually carrying backpacks over one shoulder will make muscles strain to compensate for the uneven weight. The

spine lean to the opposite site, stressing the middle back and lower back more on one side than the other. This type of muscle imbalance can cause muscle strain, muscle spasm and back pain.

While carrying a backpack to school each morning might seem harmless enough, it can cause some painful back and neck problems for students. Students carry their educational loads mostly in backpacks. The daily physical stresses associated with carrying backpacks cause significant forward lean of the head and trunk. It is assumed that daily discontinuous postural adaptations could result in pain and disability in school going children. Children carrying backpacks for school that load is too much weight are also at risk for short-term and possible long-term health issues.

The improper use of backpacks can lead to muscle imbalance that could turn into chronic back and neck problems later in life. In the India the average backpack weight is 15-20% of their body weight, and some children carry backpacks as heavy as 30% to 40% of their body weight. Many children carrying bags over just one shoulder or very low on their backs. This greatly increases the risk of pain and injury. Local authorities have asked schools to check that backpacks are not overweight and are worn properly and over both shoulders. Students of all levels, carry a schoolbag packed with textbook, notebooks, library books, geometrical and mathematic instruments snacks boxes lunch packs and water bottles and so on. The backpack is one of the several forms of manual load carriage that provides versatility and often used by hikers' backpackers, soldiers, as well as by school children. The backpack is an appropriate way to load the spine closely and symmetrically, while maintaining stability.

More than 2.5 million elementary school children carry books bags on their shoulder 5 days in a week for the entire school year, this is a large issue that needs to be addressed this problem has been reported internationally. It was difficult to generalize percentages for every school in a country however because backpack weight has been associated with several factors, including age, grade, race, school, type of backpack.

Back pain in children was uncommon earlier but now it is becoming a serious problem. Some causes of back pain in children includes; gender female is more common, age children at 10-13 years, heavy school bags especially carried on one shoulder, incorrectly packed backpacks, sedentary lifestyle, soft tissue injuries. Every day hundred and thousands of primary, middle and secondary school students rush towards their schools with overstuffed and heavy backpacks hanging over their shoulders. It looks harmless but can cause painful back and neck problems among students who do not carry their bags properly. These children sometimes carry weight 30% to 40% of their own weights that is too much.

METHODS-

This was a cross-sectional descriptive study carried out among children from the population Assess low back pain in school children in Firoz Khan Memorial Senior Secondary School, Jodhpur. A sample size of 80 school children was selected using convenient sampling. Participants were enrolled from school. Those in the age group of 6-15 years, studying in 1st to 10th standards, ability to ambulate independently, and ability to wear a school bag while standing on a weighing scale were included in the study. All children with pathological causes of back pain were excluded from the study.

RESULT-

Finding of the study indicates that assessment of low back pain by using FLACC Pain Assessment Scale ,scoring the majority 42.5% of school children feeling low back pain moderately, and 40% of school children feeling low back pain are mild discomfort pain, and 15% of school children are relaxed and comfortable or no feeling low back pain and remaining 2.5% of school children feeling severally suffering from low back pain during carrying their school backpack.

Based on finding the following recommendations were made:

- Similar study can be under taken with a large sample to generalize the findings.
- A descriptive study can be done low back pain on using heavy school backpack among school children.
- Follow up study can be conducted to evaluate the effectiveness of information booklet.

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