A Study of School Bag Weight and Back Pain among Primary School Children in Al-Ahsa, Saudi Arabia

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Abstract

Background: The recommended weight of schoolbags is less than 10-15% of the body weight. Heavy schoolbags may result in musculoskeletal and psychological problems among primary school children. This study was conducted to assess the weight of school bags in relation to primary school children weight, and to look for the prevalence of back pain among them in Al-Ahsa, Saudi Arabia.

Methods: A total of 2567 school children were included in this study both from rural and urban areas of Al-Ahsa, Saudi Arabia. A cross sectional survey was conducted in which a pre-tested questionnaire was used to ask about demographic profile, and symptoms of back pain. The weight of the school bags and the school children was measured.

Results: 1860 school children (72.46%) out of 2567 were carrying bags of weight more than 15% of their body weight. The prevalence of heavy school bags was higher among the female children as compared with the male 2564eavy sSemi Ardp /bix study

Sampling was carried out using a two stage sampling method, frst we divided Al-Ahsa into the rural and urban areas then the representation proportional to the number of children enrolled in primary schools in each group was selected.

Questionnaire

A preliminary questionnaire was pretested and revised. Te questions included demographic profle of students and the weight of school bags and students, and height of students.

Subjects

A total of 2567 students were included from grade 1 to grade 6 of male and female primary schools. Tese schools included both urban and rural areas.

Data collection

Data was collected from both male and female primary schools. Help was taken for the female schools due to the cultural norms of the area. Data from the male schools was collected by the researchers.

Data entry and analysis

Data was entered into the Statistical Package for Social Sciences version 20 (SPSS Inc., Chicago, IL).

Descriptive analyses and measures of central tendency were performed on the demographic data to describe the sample
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	6	79 (3.1%)	183 (7.1%)	174 (6.8%)	115 (4.5%)	
	Total	160 (6.2%)	539 (21%)	735 (28.6%)	1120 (43.6%)	

Table 2: Distribution of bag weight to body weight ratio according to different characteristics among students with back pain (n=2567).

Students complaining of back pain

Students with back pain complain comprised 1170 (45.6%) out of which 324 (12.6%) students said that pain was always present as shown in Table 3.

Back Pain	**Frequency**
Present	1170 (45.6%)
- Sometimes present	846 (32.9%)
- Always present	324 (12.6%)
Absent	1487 (58%)
Total	2567

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