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RESEARCH PAPER

Effects of Heavy School Bags on Students' Health at Primary Level in District Haveli (Kahutta) Azad Jammu and Kashmir

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ABSTRACT

Heavy school bags is a very serious issue for the health of the primary level students throughout the world particularly in Azad Jammu and Kashmir. This study intends to explore the effect of heavy school bags on students' health at primary level in district Kahuta. Naturally the study was descriptive and survey method was used, the population consists of one hundred ninety teachers and a sample of one hundred twenty seven teachers was selected using non probability sampling technique. A likert scale questionnaire was developed validated and distributed among the sampled respondents. The researcher personally visited the schools and collected the filled questionnaire. The data was coded and fed to the SPSS to analyze and interpret. The Chi Square test was applied to see the effect of heavy school bags on student's health and academic achievement. The study found that heavy bags have negative effect on their health as well as their academic achievement. Students were found complaining their sickness, body and back pain. They were also found improper in their gait and their body postures. The researcher recommended the policy makers to take and develop strategies to decrease the heavy school bags. The school administration needs to make alternate days' time tables of the subjects.

Introduction

Education is the backbone of a nation. In Pakistan children's education life starts around at the age of four to six. At this age, education requires to be designed in an enjoyable way for them that most probably create vast interest among children towards education and enjoy the process of learning. Unfortunately, in our country this learning process is not that much enjoyable as in this little age they have to go through a lot of study pressure. Apart from this, carrying heavy school bags is one of the rising problems in our country nowadays. Maximum kids go to school with backpack that is too heavy for them.

Mostly the parents are conscious of putting everything in the bags they may need at school including books, note books, variety of pencils and colors adding lunch boxes and water bottle. This abundance of the things made school bags heavier, many time they do

not check the bags and it contains so much useless materials which creates a great concern for the society and teachers.

While day by day timetables and sequential reading material have been actualized to limit the heaviness of school packs in the instructive framework, it appears certain courses required more than one exercise books, excluding the course book. The bag could weigh as much as 10 kilograms all at once, which is around 50% of the bodyweight of the understudies (Ahmed, 2009).

The moving school packs are recommended by well-being experts from the United Kingdom, however, they add to different challenges, for example, troublesome step control, school stockpiling, and entry through jam-packed foyers and transports (Furjuoh et al. 2003). In correlation, a vacant roller pack can weigh up to 80% in excess of a vacant school sack. Ergonomics mindfulness in the school setting has not been truly applied in Malaysia, and because of the hard work of the school sack and inaccurate sitting stance in study halls, most kids represent a more serious danger of ergonomics peril. Educators assume a significant part in creating sound propensities in the advancement of security and health among younger students identified with ergonomic issues. Like with some other type of conduct, the longing to follow more beneficial propensities is impacted or initiated by triggers in the climate of an individual (Egger et al. 2004).

A few examinations have explored the impacts of expanding heaps of school bags on physiological boundaries, estimated in Ground Reaction Force while strolling conveying hefty school packs, with an end goal to set up a sound weight limit for younger students packs (Shasmin, 2007). A few scientists note the example of stance tendency when various burdens are conveyed (Grimmer et al., 2004)

In the mental setting, polls were conveyed to acquire the reaction of the understudies about the weighty school sack. The survey was directed to search for information on the kind of school packs utilized, and low back agony presence, and the time went through consistently carrying the school bags to and from school (Grimmer et al., 2007). Bauer & Freivalds (2009) have done the exploration to discover the effect on the pulse and a few investigations have been done among understudies in different nations about burden carriage. The investigations demonstrated that 10-15% percent of their body weight is the satisfactory burden borne by the understudies. The exceeding burden may harm them in such a way example, helpless stance and shoulder gloom.

There was a solid relationship between's knapsack load and postural reaction in different investigations of youngsters' stance and form of the spine. Children, under

rucksack loads, accept a compensatory forward head pose more prominent than 10% - 15 percent of their body weight. Lung mechanics and volume are additionally disabled by hefty burdens on the spine, notwithstanding musculoskeletal and postural issues (Jing and Robinson, 2008). There is a boundless discernment that steady conveying of substantial burdens, for example, school packs, puts additional weight on juvenile spinal structures that are quickly creating, delivering them defenseless against postural change. All the above mentioned studies have been done in other parts of the world. No study was found in AJ&K.

Therefore the researcher found a gap to study the effects of heavy school bags on students' Students' Health and Academic Performance at primary level in district Haveli (Kahutta) Azad Jammu and Kashmir. In Azad Jammu and Kashmir mostly the students have to walk to school with carrying heavy school bag that caused them stressed and worried. It is observed that as a child comes back to home he throws that bag in such a way which describes their state of mind because the heavy bags was full of books, notebooks, pencils, sharpeners, crayons and other stationary they may require during school time. Additionally they had water bottles, tiffin boxes and the clothes according to weather conditions. All this gadgets increase the weight of the bags that resultantly effect their back and neck severely. Their gate is faulty, they have skeletal problems, muscular pains, and improper postures. This all leads to stunted growth of bones, physical discomfort, pain and stress. It makes them tired in the morning so they cannot pay full attention to their study in the class and back home they are tired so do not pay heed to their studies. Observing all these things for last five to ten years research opted to find out "Effect of Heavy School Bags on Students' Health at primary level in district Haveli (Kahutta) Azad Jammu and Kashmir.

Material and Methods

It was a descriptive study, conducted by the researcher to find out the effects of heavy school bags on Students' Health and Academic Performance at primary level in district Haveli (Kahutta) Azad Jammu and Kashmir. The followings steps were followed by the researcher to complete this research work.

Population and Sampling

Considering the children as minor the researcher selected teachers who are more observant and judge to find out health issues academic performance, the population consist of all one hundred and ninety (190) teachers from public sector primary schools in district Haveli (Kahutta) AJ&K. Using Krejcie and Morgan (1970) model for sampling size from the above mentioned population 127 teachers were chosen as a sample using Non Probability Sampling technique (Convenient Sampling).

Research Tool

The researcher derived a tool from previous studies, articles, books and journals keeping it as a five point likert scale which was validated and reliability was determined. The respondents were to mark one of the options. It was photocopied and distributed among them and later collected back

Procedure of Data Collection and Data Analysis

After distributing the questionnaire and requesting them to return on a fixed and stipulated time, the researcher gathered back all the fill questionnaires by visiting them personally. The returning ratio was 100%. The filled questionnaire were tabulated and coded to enter in SPSS. Lastly the data was analyzed by using Chi-Square residual values to find out the results. The table were interpreted and conclusion were made, then on the basis of findings the recommendations were developed by the researcher.

Results and Discussion

Table 1
Students remain sick mostly due to heavy school bags

	Observed N	Expected N	Residual	Chi Square	df	p
A	35	32.8	2.3			
SA	88	32.8	55.3			
UD	4	32.8	-28.8	143.84	3	.000
DA	4	32.8	-28.8			
SDA	0	0	0			
Total	131					

Table 1 above showed that the residual value of agreed (A+SA) group is 57.6, which is greater than the other groups that means the majority of the teachers were agreed that students remain sick mostly due to heavy school bags. The χ^2 (3) = 143.84, p<.05, also confirmed the results.

Table 2
Students mostly complaint body aches

	Observed N	Expected N	Residual	Chi Square	df	p
A	43	65.5	-22.5			
SA	88	65.5	22.5			
UD	0	0	0	150.45	3	.000

DA	0	0	0
SDA	0	0	0
Total	131		

Table 2 above showed that the residual value of agreed (A+SA) group is 22.5, which is greater than the other groups that means the majority (f=131) of the teachers were agreed that students mostly complaint body ache. The χ^2 (3) = 150.45, p<.05, also confirmed the results.

Table 3
Students usually complaint back pain

	Observed N	Expected N	Residual	Chi Square	df	p
A	60	26.2	33.8			
SA	12	26.2	-14.2			
UD	8	26.2	-18.2	99.267	4	.000
DA	47	26.2	20.8			
SDA	0	0	0			
Total	131					

Table 3 above showed that the residual value of agreed (A+SA) group is 33.8, which is greater than the other groups that means the majority (f=72) of the teachers were agreed that students usually complaint back pain. The χ^2 (4) = 99.267, p<.05, also confirmed the results.

Table 4
Students seem weak and pale in the morning

	Observed N	Expected N	Residual	Chi Square	df	P
A	59	43.7	15.3			
SA	36	43.7	-7.7			
UD	0	0	0	80.076	2	.000
DA	36	43.7	-7.7			
SDA	0	0	0			
Total	131					

Table 4 above showed that the residual value of agreed (A+SA) group is 15.3, which is greater than the other groups that means the majority (f=95) of the teachers were agreed that Students seem weak and pale in the morning. The χ^2 (2) = 80.076, p<.05, also confirmed the results.

Table 5
Healthy students perform well in classroom

	Observed N	Expected N	Residual	Chi Square	df	P
A	43	32.8	10.3			
SA	40	32.8	7.2			
UD	4	32.8	-28.8	45.64	3	.000
DA	44	32.8	-11.2			
SDA	0	0	0			
Total	131					

Table 5 above showed that the residual value of agreed (A+SA) group is 17.5, which is greater than the other groups that means the majority (f=83) of the teachers were agreed that Healthy students perform well in classroom. The χ^2 (3) = 45.64, p<.05, also confirmed the results.

Table 6
Heavy school bags effect on students health badly

	Observed N	Expected N	Residual	Chi Square	df	P
A	43	32.8	10.3			
SA	48	32.8	15.3			
UD	8	32.8	-24.8	29.031	3	.000
DA	32	32.8	-.8			
SDA	0	0	0			
Total	131					

Table 6 above showed that the residual value of agreed (A+SA) group is 25.6, which is greater than the other groups that means the majority (f=91) of the teachers were agreed that Heavy school bags effect on students health badly. The χ^2 (3) = 29.031, p<.05, also confirmed the results.

Table 7
Heavy school bags affect their gait

	Observed N	Expected N	Residual	Chi Square	df	P
A	63	32.8	30.3			
SA	24	32.8	-8.8			
UD	16	32.8	-16.8	39.534	3	.000
DA	28	32.8	-4.8			
SDA	0	0	0			

Total	131					

Table 7 above showed that the residual value of agreed (A+SA) group is 30.3, which is greater than the other groups that means the majority (f=87) of the teachers were agreed that Heavy school bags affect their gait. The χ^2 (3) = 39.534, p<.05, also confirmed the results.

Table 8
Heavy school bags affect their body posture

	Observed N	Expected N	Residual	Chi Square	df	P
A	56	43.7	12.3			
SA	28	43.7	-15.7			
UD	0	0	0	9.359	2	.000
DA	47	43.7	3.3			
SDA	0	0	0			
Total	131					

Table 8 above showed that the residual value of agreed (A+SA) group is 12.3, which is greater than the other groups that means the majority (f=74) of the teachers were agreed that Heavy school bags affect their body posture. The χ^2 (2) = 9.359, p<.05, also confirmed the results.

Table 9
Heavy school Bags affect their behavior

	Observed N	Expected N	Residual	Chi Square	df	P
A	47	26.2	20.8			
SA	24	26.2	-2.2			
UD	4	26.2	-22.2	79.725	4	.000
DA	52	26.2	25.8			
SDA	0	0	0			
Total	131					

Table 9 above showed that the residual value of agreed (A+SA) group is 20.8, which is greater than the other groups that means the majority (f=71) of the teachers were agreed that Heavy school Bags affect their behavior. The χ^2 (4) = 79.725, p<.05, also confirmed the results.

Table 10
Students cannot sit properly in the classroom

	Observed N	Expected N	Residual	Chi Square	df	P
A	67	32.8	34.3			
SA	36	32.8	3.3			
UD	8	32.8	-24.8	59.809	3	.000
DA	20	32.8	-12.8			
SDA	0	0	0			
Total	131					

Table 10 above showed that the residual value of agreed (A+SA) group is 37.6, which is greater than the other groups that means the majority (f=103) of the teachers were agreed that Students cannot sit properly in the classroom. The χ^2 (3) = 59.809, p<.05, also confirmed the results.

Discussion

As the study was quantitative and the collected data were then tabulated, Analyzed and interpreted by using Chi-Square residual values to see the effect of heavy school bags on student's health. The study found that the weight of the bag affects students' health negatively. It was also confirmed by the study of (Macias, 2008). This all were confirmed by several studies such as Lai & Jones (2000) who confirmed that backpack weight severely effect on forced expiratory lung volumes, body posture and body pains in students at primary level. Similarly Skoffer (2007) identified an asymmetric manner might play a major role in LBP that is the result of holding heavy school bags, even he did not find significant relationship with symmetrical and asymmetrical as there is a difference in school bags volume in different regions. Similar findings were found in the study Li, Hong and Robinson, (2003). From the findings of the study it is concluded that the children with school bag 3-10 Kg are not happy with their school bags because they are not given pleasure by their school bag, which they don't feel easy to carry their bag to school or back to home. The researcher concluded that the student with heavy school bags feel pain in their neck and back as they feel it hard to walk while carrying their school bags. They remain sick mostly and feel fatigue when the return back to their homes from schools. From the findings of the study it is concluded that the children with school bag 6-10 Kg can't sleep well at night, they can't sit or stand easily for long. All the above findings were in line with the study of Mohammad& El-Sais, (2013).

Conclusions

The study found that the weight of the bag affects students' health negatively. The study also found that the heavy the school bag the low were the standard of their health. The effect of backpack weight effect their gait, postures and attentiveness, students complain of aches, seems pale and may have lung and breathing problems. From the findings of the study it is concluded that the children with school bag 3-10 Kg are not happy with their school bags because they are not given pleasure by their school bag, which they don't feel easy to carry their bag to school or back to home. The researcher concluded that the student with heavy school bags feel pain in their neck and back as they feel it hard to walk while carrying their school bags. They remain sick mostly and feel fatigue when the return back to their homes from schools. From the findings of the study it is concluded that the children with school bag 6-10 Kg can't sleep well at night, they can't sit or stand easily for long.

Recommendations

1 It is recommended for schools education department that they should take this serious to reduce the syllabus according to the need of students and time. Extra books should be excluded from the syllabus to reduce the weight of school bags.

2 It is also recommended for the curriculum developer that at primary level only Urdu and English reading and writing material and simple methatmetics should be be included in syllabus. First the students should learn to read and to write then gradually they should be given more information about subjects.

3 It is recommended for the school teachers that if it is necessary to teach the students all subjects at a time then school related books and note books must be kept in school for school work.

4 Regular physical examination of the students should be arranged by the parents and school administration.

5 Alternate day time table can be beneficial for the students the time table should be made in such a way that half of the subjects should be taught by the teachers.

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