Influence of Family Economic Status on Education and Health of Special Children in Islamabad

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Abstract

The study was conducted to find out the economic status of the parents of special children residing in Islamabad and its influence on their health and academic condition. The population of the study comprised the children with special needs studying in grade 1-10 in 4 model government special education institutions in Islamabad. The sample of 10 special children from each grade was randomly selected. A questionnaire was developed for classifying the parents with special children into poor, middle class and well off. The questionnaire was developed for teachers to obtain information regarding academic status of the special children. The medical case history forms and the observation checklist were used to assess the health condition of the sample. The data collected through the questionnaire were tabulated and analyzed using descriptive and inferential statistics via SPSS. A strong correlation was obtained between socioeconomic status and health conditions as well as academic status of these children. Multiple comparison analysis revealed the significant difference in academic status of the children belonging to very poor and the high income group. But no significant difference was found between health conditions of the children with special needs belonging to different socio-economic status.

Keywords*: c*hildren with disabilities, socio economic status, academic achievement, health status

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Introduction

The term of socio-economic status (SES) is relevant to all domains of behavioural and social sciences, including research, practice, education, and advocacy because it covers not only income, but also educational attainment, financial security, and the perceptions about social status and social class. It covers the different attributes related to the quality of life as well as the privileges received by the people of any society. Socio economic status affects overall human functioning, including our physical and mental health. Therefore, socio-economic status is considered as a consistent and reliable predictor for physical and psychological health of the individuals. Low SES and its correlates, such as lower educational achievement, poverty and poor health are affecting our societies globally. Individuals with disability and their families are at increased risk for poor health and quality-of-life outcomes when their disability status affects their socioeconomic standing (APA Factsheet, 2010).

According to UNESCO (2010), a devastative proportion of people with disabilities belong to very poor families. It is widely believed that the primary background of the students is the only important element of influencing educational outcomes in most developing countries. It is also widely understood that academic and physical health generally improves with improvement in the overall socio-economic status at all levels, and in all subjects. It has also been noted that the extreme poverty of the parents reduces the ability of the children to learn.

In countries such as Pakistan, the absolute poverty has been severely damaged by nutrition, health, low parent education, limited financial resources for education, and poor household conditions. Poverty in Pakistan, especially in the rural areas leads to a bad home condition and a child learns to be disabled for physical development. Seventy percent of Pakistanis lives in rural areas and most of young children's population grow there. Due to the overwhelming poverty, ignorance, nutrition, poor housing facilities, inadequate healthcare and environment, the children with disabilities are more vulnerable to poor academic and health conditions.

Good physical and mental development cannot be achieved in an environment where poverty prevails to a level that food and shelter are adequate, and health services are either inadequate or largely inaccessible. Negative social, economic and environmental conditions can be seen as responsible for the poor performance of children, who otherwise can develop their capabilities in a more favorable environment up to a certain level. In every society, parents play a complex role in training and social

communication development of their children. But these responses become more difficult, confused and harder to work out for children with disabilities. Parents of disabled children have more problems than the common problems appearing in the childcare of the healthy children. Although relation between poverty and disability is often observed, they have not been credited with credibility (Porterfield & McBride, 2007).

Barry (2006) found that out of family, school, peers and student's role, the strongest predictor of students' score is socio-economic status. Household conditions are often unwanted or undesirable to learn in the poor community. These include factors like lack of appropriate lightening, ratio of spending time at home, household business activities, lack of office or a work desk, lack of books at home etc. These domestic conditions leading to unstable environment and financial trouble, often promote mental stress and emotional stress, which can increase due violence and abuse in homes. All these challenges in the poor community, combined with the impact of low-level parental education, are impeding to learn the result of significant homework. Evaluation of the family's economic stress and personal financial deficit has revealed emotional trouble and influence on students' educational outcomes.

Several studies in developing countries have been conducted to find out the relationship between economic status and academic achievement of the children from primary to higher education level. The finding of the majority of studies agrees that economic status greatly affect the academic condition of the students. With the change in parent's economic situation, the academic condition of the student also suffers, may it goes on good or bad (Farooq, Chaudhry, Shafiq & Berhanu, 2011; Chandra & Azimuddin, 2013; Singh & Choudhary. 2015; Bhatt, Joshi & Wani, 2016).

Gupta, Wit & McKeown (2007) have found family income as a key factor affecting the healthy child development from very young to adulthood. Case, Lubotsky & Paxson (2002) examined the effect of income on the health status of children. Since children in developed countries are unlikely to work, the relationship between income and health status is unidirectional, from income to health status. They find a positive relationship between health and income, but they also find that the income gradient becomes steeper as the children age increases. The steepening gradient implies the negative effects of low family incomes on children's health. And the harmful effects of low income on a child's health are likely to accumulate over the child's lifetime.

Parenting is the center of the world's children from the birth. Parents being the sole source of the basic material needs, protection and environmental impact, they play an important role in the development of

their children. Some international studies have explored the effects of family economic status on children with special needs and have found that there was a socially significant-increased risk of poorer health of children with intellectual disabilities due to the increased risk of socio-economic disadvantages and the children with special health care needs have less access to health services (Emerson & Hatton, 2007; Porterfield & McBride, 2007). A recent international study by Kvande, Belsky & Wichstrom (2017) has explored how family economic status is linked to special education. The results revealed no direct effects of SES on special education. The phenomenon appeared to be under researched in case of national children with special needs. Therefore, the researcher took an attempt to explore the affects and implications of family economic status on education and health conditions of children with special needs.

Objectives

The objectives of this study were to find out the:
i.   Socio-economic status of families having children with special needs;
ii. Academic and health conditions of the children with special needs;
iii. Effect of different socio economic status on health of the children with the special needs;
iv. Relationship between family economic status and academic status of the children with special needs belonging to different economic status.

Methodology

The study was descriptive in nature. The overall aim was to describe the current situation and look quantitatively for possible relationships between variables of the study. The population of the study comprised of:
i.   Children with four major disabilities studying at primary to the secondary level in special education institutions of Islamabad.
ii. Teachers and parents of these students with special needs.

A simple random sampling technique was used to pull the samples of 200 children from the population of four disability types studying in the National Special Education Centers in Islamabad.

Three types of tools were developed and used to collect data. Detail of the tools is as follows:
i.   The questionnaire for the parents consisted of total 15 close type items was developed to explore parental economic status and child's medical history. It was divided in two sections: part (A) with the title "Income" and part (B) with the title "Health".

ii. An observation checklist of 9 items was developed to observe the current health condition of the students in the class.

iii. The 5 point Likert's scale questionnaire was developed for teachers to evaluate the classroom task completion and achievements related to different subjects. It comprised of 19 items and one open ended question to record the recommendations.

A pilot test was conducted on 20 children from the selected schools which were not included in the sample. For the purpose of data collection, consent of the school authorities and parents was obtained. Parents were telephonically contacted either by the researcher or by the class teacher and the parental questionnaires were filled. For health observational check list, researcher visited the classrooms and observed the current health condition of the students. Moreover, entries about previous illnesses and treatment were made as per health records obtained from their class teachers. Teachers' questionnaires were personally distributed among teachers of the sample selected and afterwards collected to have an insight about academic condition of these children.

On the basis of the responses obtained, quantitative data analysis was done using SPSS (Statistical Package for Social Science) 16. The socioeconomic status was calculated on the basis of total income of the family. The health score of the observation checklist was obtained after adding the score of each condition, i.e. good = 2, average = 1, poor = 0. The health items related to historical record were given the score of 1 for each positive condition and zero score for negative health status like prolonged illness. The cumulative score of both sections was used to represent the health status of the children. The total score of academic status was obtained by adding scores of both positive and negative statements of five point Likert scale. For positive statements, scoring scheme was SA = 5, A = 4, UC = 3, DA = 2, SDA = 1. For negative statements, reverse scoring was done and the total score was obtained to represent the current academic status of each child.

Results

Both descriptive and inferential statistical analysis revealed the following results.

Table 1

Age of the parents and the children with the varying disability type

Age of parents	Father (%)	Mother (%)	Age of students (years)		Disability type	
			Age range	%	Type	%
20 - 30	11	19	5 - 10	30	Hearing Impairments	23
30 - 40	47	49	10 -15	58	Visual Impairments	27
40 - 50	36	27	Above15	13	Physically Handicapped	34
Above 50	7	5			Intellectual Challenged	17

Table 1 indicates that the diversity in age group of both parents and children and the disability type of these children.

Table 2

Qualification and Occupation of the Parents of children with special needs

Qualification of the parents	Father (%)	Mother (%)	Occupation of the parents	Father (%)	Mother (%)
Primary to matric	33	48	Private Job	47	57
FA	28	19	Government Job	33	30
BA	22	18	Labor	21	_
Masters	10	8	Housewife	_	14
Uneducated	7	8			

It is evident from table 2 that although the education level of the parents shows great diversity, but the majority of parents were having intermediate or graduation degree. Moreover, more than 50 % of the parents were employed either in the private sector, or in government sector job.

Table 3

The number of special children and children without disabilities in the families

No of children	Special Children	No of children	Normal Children
	%		%
1	75	1	67
2	24	2	33
3 and Above 3	2	3 and Above 3	2

The data in Table 3 shows that a vast majority of families were having only one special child and only one normal child at homes.

Table 4

The number of earners and Number of Dependents in the families

Values	Earners	Values	Dependents
	%		%
1	67	1 – 5	53
2	32	5 – 10	45
3 and Above 3	1	Above 10	3

Table 4 shows that in the majority of families there was only one earning hand whereas the number of dependents were from 1-5. On the other hand, the second majority of families were having 5-10 numbers of dependents.
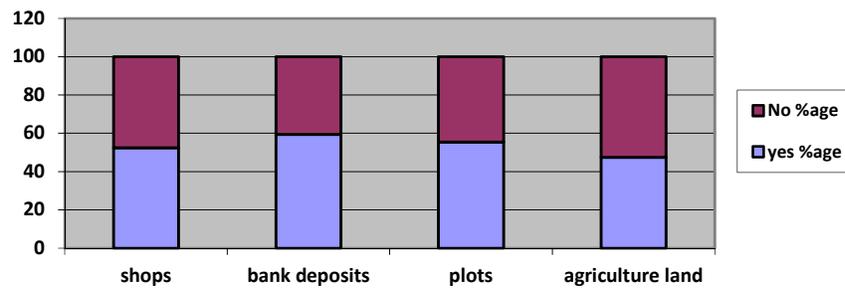

Figure1: Factors other than the salary, contributing towards the economic status of the families

Table 5

Total monthly income from all sources and economic category of the family

Values	Total Income per month Response Category					Economic status	
	Up-to 8,000	8,000 to 12,000	12,000 to 18,000	18000 to 35,000	Above 35,000	Category	%age
						LOW	79
Frequency	77	81	20	12	10	MIDDLE	10
Percentage	39	41	10	6	5	HIGH	11

The table 5 and figure 1 shows that despite the varied income sources of the families having children with special needs, the majority of the parents were having very low and low total income of the family i.e. up-to 8,000 and 8,000-12,000 respectively. Both these income groups were combined to put the families into low economic status. The income group of 12,000-18,000, was considered as representing the middle economic status of the families. The last two income groups were combined to be termed as families with high economic status.

Table 6

Pearson correlation between economic status, health and academic achievement

	Economic status	Academic status
Academic status	r = 0.62 p < 0.0	
Health status	r = 0.49 p < 0	r = 0.35 p < 0

Table 6 depicts that there exists a moderate level, positive relationship between economic status and academic achievement (0.62) and economic status and health conditions (0.48) of the children with special needs.

In order to find out the influence of economic status on academic and health conditions of these children, the comparison of the mean academic and health scores of the three income group was carried out. For this purpose, first the mean academic and health scores pertaining to low, middle and high income group was calculated as shown in the table 7 below.

Table 7

Mean academic and health scores of the children of each income group

	Income Group	N	Mean	Std. Deviation	Minimum	Maximum
Health Status	Low	158	49	9	27	67
	Middle	20	48	9	33	60
	High	22	52	9	40	67
	Total	200	49.1	9.2	27	67
Academic Status	Low	158	82	18	31	101
	Middle	20	84	21	40	101
	High	22	78	22	30	101
	Total	200	81.7	18.7	30	101

It is evident from table 7 that there were variations in the mean health and academic scores of the three income group. ANOVA was applied to explore these variations.

Table 8:

Analysis of variance in mean academic and health scores of the three income groups

	Income Group	N	Mean	Std. Deviation	F	P
Health Status	low	158	48.8	9.3	1.26	0.29
	middle	20	47.9	8.8		
	High	22	51.9	9.0		
Academic Status	low	158	81.9	17.9	0.65	0.52
	middle	20	84.3	21.4		
	High	22	77.9	22.1		

The ANOVA results showed that the overall mean differences were not statistically significant at $\alpha = 0.05$ level of significance, when income groups were merged to form three major groups. A further multiple comparison analysis was carried out to find the difference in five income groups, if any. It was found that there was a significant difference in mean academic scores of the very low and the low income group i.e. 0.049. And the same was true for the very low and very high income group, i.e. 0.029 at $\alpha = 0.05$ level of significance. There was also a significant difference in mean academic scores of middle income and the very high income group at 0.10 level of significance i.e. 0.08. No significant difference was revealed at mean health scores of the children of all five groups, even at α

=0.10. The detail result of multiple comparison analysis in five income groups is depicted in table 9 below.

Table 9

Multiple Comparisons between academic and health scores of five income groups

LSD

Dependent Variable	(I) Income	(J) Income	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Academic achievement	1	2	-2.88328*	1.45458	.049	-5.7520	-.0146
		3	-.53636	2.29362	.815	-5.0599	3.9871
		4	-2.71970	2.83632	.339	-8.3135	2.8741
		5	-6.73636*	3.07193	.029	-12.7948	-.6779
	2	1	2.88328*	1.45458	.049	.0146	5.7520
		3	2.34691	2.28192	.305	-2.1535	6.8473
		4	.16358	2.82686	.954	-5.4116	5.7387
		5	-3.85309	3.06320	.210	-9.8943	2.1882
	3	1	.53636	2.29362	.815	-3.9871	5.0599
		2	-2.34691	2.28192	.305	-6.8473	2.1535
		4	-2.18333	3.33707	.514	-8.7647	4.3981
		5	-6.20000	3.53950	.081	-13.1806	.7806
	4	1	2.71970	2.83632	.339	-2.8741	8.3135
		2	-.16358	2.82686	.954	-5.7387	5.4116
		3	2.18333	3.33707	.514	-4.3981	8.7647
		5	-4.01667	3.91307	.306	-11.7340	3.7007
	5	1	6.73636*	3.07193	.029	.6779	12.7948
		2	3.85309	3.06320	.210	-2.1882	9.8943
		3	6.20000	3.53950	.081	-.7806	13.1806
		4	4.01667	3.91307	.306	-3.7007	11.7340

Discussion

The poor economic status of the families of the special children conjoined with low parental educational status was evident through the results obtained. The less number of earning members of the family were over burdened by more than five dependents in the family, including at least one special child as well. Thereby, most of the parents were not able to afford the appropriate timely medical treatment of their children. This study may help the policy makers to think about strengthening the policies for providing financial and material assistance to children with special needs. The current study strengthens the previous claim that social and economic differences such as health, nutritional status and access to the specialized environment - academics, mobility rates and financial assets - certainly affect academic success (Farooq, Chaudhry, Shafiq & Berhanu, 2011; Chandra & Azimuddin, 2013; Singh & Choudhary. 2015; Bhatt, Joshi & Wani, 2016).

The results obtained through inferential statistics revealed that there was a significant relationship between economic status and academic achievements of student. The results are in line with the very old findings of Johnson (1965) who also showed that poverty of parents has elastic effects on their children's academic works as they lack enough resources and funds to sponsor their education and good school, good housing facilities and medical care and social welfare services. It is generally believed that children from high and middle economic status parents are better exposed to a learning environment at home because of provision and availability of extra learning facilities. The use of data about family possessions may be thought to be connected to economic status, students who used a computer both at home and at school achieved a significantly higher science score than those who only used a computer at school (Thompson and Fleming, 2003). These researches discussed all the problems faced by the poor family to continue their education of the child and also discussed that middle class and high class families easily fulfill the needs of their children. The current research findings of significant difference in academic scores of the very low with the low as well as very high income group correspond with many researches discussed earlier. So the comparison analysis done at five specific levels of income is in line with previous studies.

The research finding of Bumbalo, Ustinich, Ramcharran, & Schwalberg (2005) correlates with the current research findings. A family's need for support services, and particularly for care coordination, may depend less on the family's means than on the impact of their child's

condition. In current study, there is no significant effect on the health status of the children with special needs when the different economic status groups are compared, irrespective of the majority of earlier studies. The reason might be that the sampled children with special needs were residing in the capital city of Pakistan and studying in the model special education schools of Pakistan. The change in demographical factor, i.e. the children belonging to poor villages may reveal some difference in results. The results of the current study may help in further exploration of various factors responsible for the poor performance of special students in schools, by future researchers.

Conclusions

The study concluded that there was a moderate level of the relationship between academic status and economic status of the children with special needs. And the same moderate level of relationship existed between health and economic status of these children. The economic status of very low and very high income groups was significantly affecting the academic status of the children. There was no significant effect of change in economic status on health condition of the children with special needs. This research can be replicated to assess the impact of variations in economic status of the parents and performance of the special need children belonging to rural and urban areas.

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