Violence and Learning Skills of Children: Evidence from Punjab, Pakistan

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Abstract
This study examines the impact of violence (verbal and physical) on the learning skills of children in Punjabi society where punishment is considered socio-culturally acceptable and the practice of violence is considered as a normal way to solve problems. To find the impact of violence we have employed data from Multiple Indicator Cluster Survey (MICS) 2017, which has incorporated new questions regarding the quality of education and prevalence of violence on children in the context of SDGs. We have constructed indices of physical violence, verbal violence, and learning outcomes. Ordinary Least Square (OLS) technique has been employed to estimate the learning status of children. Learning outcomes of quantitative ability are estimated by using ordered logistic regression because it is a categorical variable. We have also estimated the effect of violence on the English reading skills and English comprehension of children through the logistic regression model. Results concluded that both types of violence affect learning outcomes negatively and significantly after controlling other household and demographic variables.
Key Words: Verbal violence, Physical violence, Learning Status, Quantitative ability, English comprehension, English reading skills

1. Introduction

Upgrading the quality of education is among the first and foremost duty of any state because education plays a fundamental role in the process of growth and development of a country (Romer, 1990, Mankiw et al., 1992; Barro, 2001). That's why during the last decade, policymakers and researchers focused not only on quantity of education (enrollment, attendance, years of schooling) (Becker, 1964; Mincer, 1974; Duflo, 2001) but also on quality (learning outcomes) of education (Awan et al., 2011). The fourth out of seventeen sustainable development goals (SDGs) focuses on the quality of education. Research shows that punishment has an adverse and significant impact on the quantity of education as it increases the dropout rate while on the other hand it affects the on the quality of education by hindering the school performance. According to the Society for the Protection of the Rights of the Child (SPARC), 35000 pupils dropped out of school as a result of physical punishment in Pakistan.

The study shows how violence (physical and verbal)[3] affect quality of education by measuring the learning outcomes of students. Physical violence harms student's learning as it lowers their intellectual power (Straus 2009, Alyahri and Goodman 2008; Human Right Watch 2008; Youssef et al.,1998) moreover, students become mentally retarded and unable to perform well in academics (Nichols and Newman, 1986; Guthrow, 2002), whereas punishment builds negative association of students towards their teachers ultimately leads to low grades (Coon, 2001). A UNICEF (2009) review report showing the situation of 37 countries that 86% of children of age 3-12 faced psychological anger and violent behavior in their schools. SPARC (1999) showed that children facing corporal punishment become fearful and lose confidence about doing things properly and develop an inferiority complex about their personality.

In Punjab, violent behavior in educational institutions and homes is a prevalent practice to keep the child disciplined but it leaves children frightened, sometimes injured due to this they are unable to learn effectively[4]. In 2005, the government of Punjab had taken an initiative to abolish physical punishment under the slogan of "Maar Nahi Pyar" (affection, not beatings). Pakistan has implemented a number of laws on the subject after the Convention on the Rights of the Child CRC was ratified in 2005, yet despite this, corporal punishment is still used since it is culturally accepted as a traditional and authoritarian method of discipline by parents and teachers[5].

According to Save the Children and UNICEF (2005), there is a widespread belief among parents and teachers that physical punishment is an effective way to change children's behavior or promote learning, and this belief is accepted in societies where using physical force to resolve conflicts is considered the norm.

According to data from the Multiple Indicator Cluster Survey conducted in 2017 in Punjab, about 41% of parents still believe that physical punishment is vital for raising children. A study conducted by Alif Ailaan[6] and the

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[3] Punishment, from a psychological perspective, is anything that makes a behavior less likely to occur (Lefton, 2002; Kosslyn and Rosenberg, 2002). A comprehensive definition of Corporal punishment can be "The use of physical force intended to cause pain, but not injury, to correct or control a child's behavior" (Straus and Donnelly, 2008). Physical punishment is performed in the form of slapping, spanking, punching, kicking, hitting, pinching, shoving, and shaking (Gershoff and Bitensky, 2007; Gershoff and Grogan-Kaylor, 2016; UNICEF, 2014). Verbal punishment is defined for this study as screaming, yelling, shouting, and calling children lazy, dumb, and other names. Although incidence estimates differ depending on whether they are based on observation or parental reports, verbal punishment is also extremely widespread. In a large poll, 63% of parents of children between the ages of 24 and 36 months and 51% of parents of children between the ages of 18 and 23 months admitted to frequently or occasionally yelling at their children (Wissow, 2001).
[4] End corporal punishment in Pakistan's schools, 16 September 2019 (Human rights watch)
[5] On 5 September 2019, Hunain Bilal 17 years old boy from Lahore beaten to death by his teacher because he could not memorize his lesson.
[6] Since 2013, the NGO Alif Ailaan has working in Pakistan's educational sector.

Society for the Advancement of Education found that 70% of school teachers surveyed were in favor of physical punishment for students. Target 16.2 of the SDGs, which focuses on violence against children, calls for the elimination of all types of child abuse, exploitation, and torture. Therefore, it is important to stop this practice in our society, where both parents and teachers support harsh measures and adhere to the proverb "spare the rod, spoil the child." In Punjabi society, where punishment is viewed as a key tool in raising children, the study's goal is to explore the nature of the relationship between punishment and the learning abilities of children. Using information from the MICS 2017 survey of Punjab, we have found that parents who physically or verbally abuse their children are more likely to make their kids slow learners, in basic educational skills.

The current study is related with the economics of education in light of how crucial educational outcomes are to having a high standard of living. The skilled population is typically seen as a crucial component of current knowledge-based economies (Hanushek and Woessmann, 2008) and studies indicate returns to skills are positive where better Math skills can increase earnings by $21,000 while on the other hand an improved reading and writing skills could bring about $11,000 increase per year in earnings of a worker in America (Learning Agency, 2020). The returns to education are well acknowledged by the relevant strand of literature. For example, the earnings of the individuals increase with an additional school year (Becker, 1962; Mincer, 1974, Duflo, 2001). Given the positive and significant impact of education on quality of life developing countries are taking several initiatives in the educational sector to increase the quality of the educational process because improvement in education quality is the top priority for the global human development agenda in less developed countries (United Nations 2015).

2. Literature Review

The use of corporal and non-corporal punishments at school is viewed as the primary method for maintaining student discipline, and several studies have attempted to determine the influence of these methods on learning results. One of the risky components of an adult's or student's education that keeps eroding the foundations of the student's personal and intellectual development is corporal punishment (Gershoff, 2002). For many years, the most common forms of discipline in educational institutions around the world have been physical and verbal violence. Batool, Ali and Mehmood (2017) explored the negative and significant relationship between punishment and student's class participation and motivation level by conducting a study on selected schools from district Rawalpindi and Rawat. Corporal punishment also contributes to child abuse and also encourages children to act violently toward one another (Andero, 2002). According to a study, physical punishment of children increases their antisocial attitudes by impeding their ability to acquire the behaviour that corporal punishment was meant to encourage (Gershoff, 2008). Pineda (2005) reported that 80% of students experience punishment in various parts of the world, which ultimately results in students' low learning ability. Punished students are less motivated to participate in class activities, lacking confidence, hesitant to participate in group discussions, and are less interested in their academics (Ahmad, 2013). By comparing the intellectual capabilities of punished and unpunished pupils, Kim (1999) came to the conclusion that punishment impairs students' ability to learn. Students who face violent behavior from teachers and parents become mentally retarded by losing their memory and performing low in academics (Nichols and Newman, 1986; Guthrow, 2002). Spanking or slapping is threatening as well as freighting which badly affects child's cognitive abilities through adverse brain structure in children (Turner and Finkelhor 1996; Tomoda et al 2008). After adjusting for ten parenting and demographic factors, (Straus and Paschall, 2009) concluded that children who experience physical punishment developed their cognitive abilities more slowly than their peers who weren't spanked. The more physical punishment they underwent, the further behind they were compared to other children.

Some researchers favor the punishment to discipline children because if they are not punished, they will become rebellious and manage to difficult citizens. Gershoff (2002) concluded that punishment is seen as a powerful source to control students by teachers in large classrooms. Because they make noises and teachers believe that students will not be able to concentrate on their learning properly if they are not punished. The reinforcement theory of punishment also considers punishment as a significant approach to discipline or reform any individual. It claims that punishment has a corrective effect on the learning of students (Tarimo, 2006). On contrary, redistribution theory is grounded on the law of retaliation and doesn't favor punishment because it leads to rebellious attitudes in students causing a negative relationship between teacher and students ultimately leads to an ineffective learning process (Cicognani, 2004). Any occurrence of violence and crime at school has an impact on the individuals involved as well as on the learning environment. Furthermore, it has an impact on the school and surrounding community as well (Henry, 2000). Children exposed to violent behavior have less grey matter in the area of the brain that is intricately linked to self-confidence, which affects their capacity to learn, making them appear to be more worried and mentally sick (Healthy Children. Organization). Additionally, punishment not only decreases the number of pupils in schools but also has an impact on their ability to learn. For a nation like Pakistan, where there are 22.2 million school-age children who are not in enrollment (the second-highest number in the world), and those that are enrolled frequently do not meet even the most basic learning levels, this scenario is extremely concerning (ASER Pakistan, 2019).

Apart from punishment some other factors also affect a child's learning such as the parental socio-economic background, parental education, encouragement and involvement is a significant contributor to the learning of a child (Jesson et al., 2014; Haider and Ali, 2015; Kassem et al., 2019). Schools show better learning levels of

students are those with students from advantageous socio-economic background (Coleman et al., 1966; Summers and Wolfe 1977; Zimmer and Toma 2000). Becker (1964) shows parents with higher income spend more on the education of their children. Moreover, the parental education, encouragement, and involvement are also the positive determinants for the social and cognitive learning of a child (Willms and Chao, 2002; Ahuja, 2006; Shair & Majeed, 2020; Shair et al., 2021). The study's main goal is to raise awareness of the negative effects of physical and verbal violence and to highlight the problem of corporal punishment in contemporary culture.

3. Data

To test empirically the impact of the educational initiative on learning outcomes the date from the Multiple Indicator Cluster Survey (MICS) 2017for the Punjab province, Pakistan has been used. MICS is an international program, supported by the United Nations International Children Emergency Fund (UNICEF), aimed to collect detailed information at the household level on key indicators reflecting the situation of children, men and women. To assess the performance on SDGs indicators the MICS questionnaire for 2017 underwent rigorous changes and incorporated new questions regarding the quality of education in the SDGs context. The inclusion of new questions related to children's education provides a unique opportunity to explore the relationship between a child's educational learning and violence by parents. The variables used in this study are: (i) educational outcomes of students, (ii) verbal and physical violence by parents, (iii) measures of wealth, (iv) social and demographic characteristics at individual and household level. Table 1 describes summary statistics of all the independent and dependent variables of the study.

3.1 Educational Outcomes

Education status is a combined measure of the basic learning outcomes of students in different areas like reading status[7], quantitative ability[8] and English comprehension[9]. Learning status is an additive index generated by adding the performance of students in these above-mentioned dimensions.

3.2 Violence

Violence is a combined measure of physical and verbal violence by parents. It is also an index constructed by adding the measures of verbal and physical violence. Verbal[10] and physical[11] violence index is further constructed by adding the different questions asked by parents regarding violence.

3.3 Control Variables

The literature explains several factors that affect the educational performance of students other than violence. So, we have included some control variables like Privileges[12], mother's education, father's education, the income of the households, household belongs to the urban or rural area, age of children and the level of their education. So, these variables are also included in the estimation to capture their effects on children learning ability.

4. Empirical Strategy

This section explains the estimation strategy used in this study to capture the effect of violence (physical and verbal) on child performance. We have used cross sectional data and measured values on one point in time. The following baseline equation has been estimated by using OLS estimation:

$$ln\,Y_i = \alpha + \beta\,lnX_i + \gamma Z_i + \lambda W_i + \varepsilon_i \qquad (1)$$

Where lnY_i is the dependent variable and it represents the log of the additive index indicating the performance of the child based on the scores of mathematical and comprehension questions and reading skills. We have estimated equation (1) by using OLS method for combined learning index. Quantitative learning is a categorical variable that's why we re-estimated equation (1) by using ordered logistic regression model. And we also re-estimated equation (1) by using logistic regression for English reading skill and English comprehension because these two are dummy variables. lnX_i represents the log of the index of violence constructed by using a wide range of questions on physical and verbal violence from parents. Z_i refers to children's characteristics (age and education). W_i include control variables such as age of the child, education level of the child, mother's education level, father's education level, wealth index of the household, and area where the child belongs (urban or rural). And finally, ε_i represents the error term.

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[7] Reading status, how well the child read the story, is a binary variable in the form of 0 and 1. Where 0 shows the child did not read any word correctly and 1 is for the child to read at least one word correctly.

[8] Quantitative ability is a categorical variable based on math's test score of the child. This test is consisting of questions regarding recognition of numbers, questions related to identities and subtraction, and addition questions. If child could not answer any of the questions it is at order "1", If a child recognizes all the five numbers we ordered it "2". If child solve five questions of identities then ordered at "3", if child perform all the five questions of addition correctly child is at "4th" order and child is ordered at "5" if he can perform all the subtraction questions correct.

[9] It is a dummy variable showing "1" if child give correct answers of all the five questions from comprehension passage otherwise "0".

[10] The verbal violence index consisted of two questions, (i) parents yelled, shouted and screamed at the child and (ii) they named the child lazy and dumb. Both questions have 0 and 1 response, 0 for NO and 1 for YES.

[11] Physical violence Index is generated by adding six questions, (i) Shook child, (ii) Slapped or spanked the child on the bottom with a bare hand, (iii) Hit child on the bottom or elsewhere with belt, stick, brush, etc. (iv) Hit child on the head, face or ears (v) Spanked child on the leg, hand or arm (vi) Beat child up as hard as one could. All the responses to these questions are in 1(Yes) or 0 (No).

[12] Took away privileges as punishment "1" if yes "0" if no.

Table 1: Descriptive Statistics

Variables	Observations	Mean	Std. Dev.	Min	Max
	Dependent Variables				
Learning status	7162	21.46	4.084	6	26
Quantitative ability	7162	3.427	1.146	1	5
English comprehension	7162	.2243	.4172	0	1
Reading skills	7162	.9233	.265	0	1
Independent variables					
Violence	7162	2.551	2.075	0	8
Physical violence	7162	1.589	1.603	0	6
Verbal violence	7162	.9624	.7128	0	2
Control variables					
Privileges	7162	.4015	.4902	0	1
Education level	7162	6.023	1.767	0	10
Mother's education	7162	.5537	.4971	0	1
Age	7162	11.08	2.081	7	14
Father's education	7162	.7694	.4212	0	1
Combined wealth score	7162	.2610	.8995	-2.61	2.45
Area (urban vs rural)	7162	.3525	.4777	0	1

Note: In estimation, all the indices are used in logarithms to interpret in percentages.

5. Results and Interpretations

Table 2 provides baseline regression results. The dependent variable is the log of the additive index of child performance. Column 1 includes a log of combined violence index whereas; in columns 2 and 3 we have included physical violence index and verbal violence index, respectively. We have used robust standard errors in each specification.

Table 2 shows the impact of violence on learning outcomes of children. The results show that one percent increase in violence is related with a significant decrease in child learning status by 1.9%. In column 2 and column 3 we estimated the effects of physical and verbal violence separately. The estimates of physical and verbal violence are also negatively and significantly related to leaning status of a child. Estimated coefficients indicate that one percent increase in physical violence is associated with a significant decrease in child performance by 1.5 percent. Similarly, column three shows that a one percent rise in verbal violence leads to significant decrease in the child's performance by 2.7 percent.

Table 3 reports the average marginal effects calculated from equation (1). Here the dependent variable English reading skills is a binary variable and coded as 1 if child read at least one word correct from the story otherwise zero. The equation 1 is estimated by using the logistic regression. The coefficient of interest informs that a one percent addition in the violence index is associated with a significant 2.0 percent higher probability of lowering the child's performance. Here verbal violence is not affecting the reading skills but physical violence is affecting negatively and significantly by 1.9%.

Table 4 presents results for equation (1) re-estimated for learning outcomes of English comprehension by using logistic regression. The marginal effects of violence in column 1 are significantly and negatively affected by the learning ability of children in English by 4%. It means 1% increase in violence decrease probability for child to learn English comprehension by 4%. In column 2 physical violence decreases chances to perform for a child by 2.6% and in column 3, verbal violence reduces the probability to learn by 2.4%. Literature explains different channels through which violence deteriorate the academic performance of students in learning process. It creates rebellious attitudes, less class participation and less motivation to learn and negative association between instructor and student (Cicognani, 2004; Batool et al. 2017).

In Table 5 we re-estimated the equation (1) by using ordered logistic regression. Estimated value of violence can be interpreted as 1% increase in violence leads to decrease child's probability to perform at high and advance level by 2.6% and 4.4% respectively. And child's likelihood to remain at beginner, low and medium level increases in quantitative ability.

Table 6 shows the marginal effects of quantitative learning for equation (1) if the child faces physical violence by parents. Estimates indicate that if physical violence increases by 1% the likelihood for a child to learn Mathematics at high and advance level deteriorate by 1.7% and 2.9% respectively and significantly. Physical violence increases the chances for a child to perform at beginner, low and medium level but more chances are to perform at low levels by 2.1%.

Table 2: Violence and Learning outcomes

	[1]	[2]	[3]
Violence (log)	-0.019***		
	(0.003)		
Physical violence (log)		-0.015***	
		(0.003)	
Verbal violence index (log)			-0.027***
			(0.006)
Control Variables			
Privileges	0.021***	0.023***	0.017***
	(0.004)	(0.004)	(0.004)
Mother's education	0.003*	0.003**	0.003*
	(0.001)	(0.002)	(0.002)
Father's education	0.009***	0.010***	0.010***
	(0.001)	(0.002)	(0.001)
wealth score	-0.012***	-0.011***	-0.012***
	(0.003)	(0.003)	(0.003)
Area (urban vs rural)	0.019***	0.019***	0.017***
	(0.005)	(0.006)	(0.006)
Age	0.002	0.002	0.003**
	(0.001)	(0.001)	(0.001)
Education level	0.028***	0.029***	0.029***
	(0.004)	(0.004)	(0.004)
Constant	3.534***	3.521***	3.516***
	(0.012)	(0.012)	(0.011)
Observations	7162	7162	7162
R^2	0.151	0.147	0.147

Note: OLS estimates have been reported in the above table. Dependent variable is the log of additive index of learning scores in literacy and numeracy. In column 1 the explanatory variable is the log of additive index of violence; physical and verbal. In column 2 and column 3 log of additive index of physical violence and log of additive index of verbal violence are used as explanatory variables separately. The control variables are Privileges, Mother education, Father Education, wealth index, Area (rural vs urban), Age and Education level of child. In brackets robust standard errors clustered at household level are reported. And statistical significance at the 10%, 5% and 1% level is indicated by *, **, and *** respectively.

Table 3: Violence and English reading skills

	[1] dy/dx	[2] dy/dx	[3] dy/dx
Violence (log)	-0.020***		
	(0.006)		
Physical violence (log)		-0.019***	
		(0.007)	
Verbal violence index (log)			-0.007
			(0.010)
Control Variables			
Privileges	0.006	0.006	0.003
	(0.007)	(0.008)	(0.007)
Mother's education	0.007**	0.010***	0.009**
	(0.003)	(0.004)	(0.004)
Father's education	0.012***	0.012***	0.011***
	(0.003)	(0.003)	(0.003)
Combined wealth score	0.020***	0.021***	0.021***
	(0.005)	(0.005)	(0.005)
Area (urban vs rural)	0.005	0.005	0.002
	(0.008)	(0.009)	(0.008)
Age	0.003	0.004*	0.002
	(0.002)	(0.002)	(0.002)
Education level	0.121***	0.127***	0.128***
	(0.010)	(0.012)	(0.011)
Observations	7162	7162	7162

Note: The above table reports logistic model estimates. English reading skill is a Dependent variable. It is a dummy variable where 0 shows the child did not read any word correctly and 1 is for the child to read at least one word

correctly. In column 1 the explanatory variable is log of the additive index of violence; physical and verbal. In column 2 and column 3 log of additive index of physical violence and log of additive index of verbal violence are used as explanatory variables separately. Control variables are the same as in Table 1. In brackets robust standard errors clustered at household level are reported. And statistical significance at the 10%, 5% and 1% level is indicated by *, **, and *** respectively.

Table 4: Violence and capability of children in English Comprehension

	[1] dy/dx	[2] dy/dx	[3] dy/dx
Violence (log)	-0.040** (0.017)		
Physical violence (log)		-0.026** (0.012)	
Verbal violence index (log)			-0.024* (0.020)
Control Variables			
Privileges	0.033** (0.014)	0.032** (0.014)	0.030** (0.014)
Mother's education	0.013** (0.006)	0.013** (0.006)	0.013** (0.006)
Father's education	0.025*** (0.005)	0.025*** (0.005)	0.025*** (0.005)
Combined wealth score	0.047*** (0.011)	0.045*** (0.012)	0.044*** (0.011)
Area (urban vs rural)	0.023 (0.018)	0.031 (0.019)	0.035* (0.019)
Age	0.080*** (0.009)	0.079*** (0.009)	0.083*** (0.009)
Education level	0.096*** (0.015)	0.096*** (0.015)	0.098*** (0.015)
Observations	7162	7162	7162

Note: The above table reports estimates of logistic regression. The log of additive index of learning scores in English comprehension is a dependent variable. In column 1 the explanatory variable is log of the additive index of violence; physical and verbal. In column 2 and column 3 log of additive index of physical violence and log of additive index of verbal violence are used as explanatory variables separately. Control variables are the same as in Table 2 and Table 3. In brackets robust standard errors clustered at household level are reported. And statistical significance at the 10%, 5% and 1% level is indicated by *, **, and *** respectively.

Table: 5 Violence and quantitative ability

	Beginner dy/dx	Low dy/dx	Medium dy/dx	High dy/dx	Advance dy/dx
Violence	0.016*** (0.004)	0.032*** (0.008)	0.022*** (0.006)	-0.026*** (0.007)	-0.044*** (0.011)
Age	-0.004*** (0.001)	-0.007*** (0.002)	-0.005*** (0.002)	0.006*** (0.002)	0.010*** (0.003)
Education level	-0.017*** (0.004)	-0.034*** (0.007)	-0.023*** (0.005)	0.028*** (0.006)	0.047*** (0.010)
Privileges	-0.013*** (0.003)	-0.025*** (0.007)	-0.017*** (0.005)	0.021*** (0.006)	0.035*** (0.009)
Mother education	-0.002 (0.001)	-0.004 (0.003)	-0.003 (0.002)	0.004 (0.002)	0.006 (0.004)
Father education	-0.006*** (0.001)	-0.013*** (0.003)	-0.009*** (0.002)	0.010*** (0.002)	0.017*** (0.004)
Wealth	0.012*** (0.003)	0.024*** (0.006)	0.016*** (0.004)	-0.020*** (0.005)	-0.033*** (0.008)
Area	-0.010** (0.004)	-0.020** (0.009)	-0.014** (0.006)	0.017** (0.007)	0.028** (0.012)
Observations	7162	7162	7162	7162	7162

Note: This table reports estimates of ordered logistic regression. Dependent variable is a categorical variable ordered at five levels in quantitative ability. Higher order shows higher learning level. The explanatory variable is the log of the additive index of violence; physical and verbal. Control variables are the same as in Table 2, Table 3 and Table 4. . In brackets robust standard errors clustered at household level are reported. And statistical significance at the 10%, 5% and 1% level is indicated by *, **, and *** respectively.

Table 7 explains how verbal violence affects the ability to learn math of a child. Marginal effects are estimated which shows that if verbal violence increases by 1% by parents the chance of a child to perform at high and advance level of mathematics will decrease by 2.3% and 3.8% respectively and significantly. Verbal violence increases the chances for a child to remain at beginner, low and medium level but more chances are to perform at low levels by 2.8%.

Table: 6 Physical violence and quantitative ability

	Beginner dy/dx	Low dy/dx	Medium dy/dx	High dy/dx	Advance dy/dx
Physical violence	0.011***	0.021***	0.014***	-0.017***	-0.029***
	(0.003)	(0.006)	(0.004)	(0.005)	(0.008)
Age	-0.004***	-0.007***	-0.005***	0.006***	0.010***
	(0.001)	(0.002)	(0.002)	(0.002)	(0.003)
Education level	-0.017***	-0.034***	-0.024***	0.028***	0.047***
	(0.004)	(0.007)	(0.005)	(0.006)	(0.010)
Privileges	-0.013***	-0.025***	-0.017***	0.021***	0.034***
	(0.003)	(0.007)	(0.005)	(0.006)	(0.009)
Mother education	-0.002	-0.005	-0.003	0.004	0.006
	(0.001)	(0.003)	(0.002)	(0.002)	(0.004)
Father education	-0.006***	-0.012***	-0.009***	0.010***	0.017***
	(0.001)	(0.003)	(0.002)	(0.002)	(0.004)
wealth	-0.012***	-0.023***	0.016***	0.019***	0.032***
	(0.003)	(0.006)	(0.004)	(0.005)	(0.008)
Area	-0.010**	-0.020**	-0.014**	0.017**	0.028**
	(0.005)	(0.009)	(0.006)	(0.007)	(0.012)
Observations	7162	7162	7162	7162	7162

Note: This table reports estimates of ordered logistic regression. Dependent variable is a categorical variable ordered at five levels in quantitative ability. Higher order shows higher learning level. Log of the additive index of physical violence is the explanatory variable. Control variables are the same as in Table 2, Table 3, Table 4 and Table 5. In brackets robust standard errors clustered at household level are reported. And statistical significance at the 10%, 5% and 1% level is indicated by *, **, and *** respectively.

Table: 7 Verbal violence and quantitative ability

	Beginner dy/dx	Low dy/dx	Medium dy/dx	High dy/dx	Advance dy/dx
Verbal violence	0.014***	0.028***	0.019***	-0.023***	-0.038***
	(0.005)	(0.010)	(0.007)	(0.008)	(0.014)
Age	-0.004***	-0.007***	-0.005***	0.006***	0.010***
	(0.001)	(0.002)	(0.002)	(0.002)	(0.003)
Education level	-0.018***	-0.036***	-0.024***	0.029***	0.049***
	(0.004)	(0.007)	(0.005)	(0.006)	(0.010)
Privileges	-0.012***	-0.024***	-0.016***	0.019***	0.032***
	(0.003)	(0.007)	(0.005)	(0.006)	(0.009)
Mother education	-0.002	-0.004	-0.003	0.004	0.006
	(0.001)	(0.003)	(0.002)	(0.002)	(0.004)
Father education	-0.007***	-0.013***	-0.009***	0.011***	0.018***
	(0.001)	(0.003)	(0.002)	(0.002)	(0.004)
wealth	0.012***	0.024***	0.016***	-0.020***	-0.033***
	(0.003)	(0.006)	(0.004)	(0.005)	(0.008)
Area	-0.010**	-0.019**	-0.013**	0.016**	0.027**
	(0.005)	(0.009)	(0.006)	(0.007)	(0.012)
Observations	7162	7162	7162	7162	7162

Note: This table reports estimates of ordered logistic regression. Dependent variable is a categorical variable ordered at five levels in quantitative ability. Higher order shows higher learning level. The explanatory variable is log of the additive index of physical violence. Control variables are the same as in Table 2, Table 3, Table 4 and Table 5. In brackets robust standard errors clustered at household level are reported. And statistical significance at the 10%, 5% and 1% level is indicated by *, **, and *** respectively.

6. Conclusion
The purpose of the study was to find out that whether the policy of the government to prohibit the punishment in schools is applicable in our Punjabi society and culture where it is considered a significant tool to correct the

behaviors of children in schools as well as at homes Instead of utilizing data from schools, we used data from households to assess this link, since there is no data available on these variables from the perspective of the school. Therefore, this study serves as an indirect evaluation of the government's "Maar Nahi Pyar" policy. Basically, in this study we tried to find the relationship between punishment and learning in our society and favor the government initiative regarding punishment. Our finding shows that not only physical violence deteriorates the leaning ability of a child but verbal violence is also significantly and negatively affects it. It means even shouting or calling a child lazy and dumb affects learning in English and mathematics negatively in our society where physical punishment is considered essential for children. So, it can be concluded that in a society where efforts to prohibit punishment are sometimes met with strong opposition from teachers and parents because they believe in the famous proverb *"spare the rod and spoil the child"*. But the reality is different punishment is making children slow learners in quantitative ability and English comprehension according to the findings of the present study. It means that maybe at the time of punishment it corrects the behavior of children but in the long run, it affects their cognitive ability, confidence and motivation negatively which leads them to perform low in academics. Strong evidence exists to support the notion that childhood violence increases the likelihood of mental health issues, injuries, delayed cognitive development, dropout, and substandard academic achievement. The findings imply that more care should be given when designing interventions, taking into account the continuity between the home and school and the difficulties in implementing norm change in various settings.

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