



IMPACT OF PHYSICAL ABUSE ON GROWTH AND DEVELOPMENT OF CHILDREN AGED 3-5 YEARS IN RURAL VIDARBHA

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ABSTRACT

Child abuse has serious physical and psycho-social consequences which adversely affect the health and overall well-being of a child. It is violation of the basic human rights of a child and is an outcome of a set of inter-related familial, social, psychological and economic factors. Child abuse leads to emotional, physical, economic and sometimes legal consequences for the children aged 3-5 years. It is a globally prevalent and preventable phenomenon. Objectives of the study were 1) To identify the relationship between parent reported physical abuse and cognitive development, 2) To identify the relationship between parent reported physical abuse and motor development, 3) To identify the relationship between child reported physical abuse and cognitive development and 4) To identify the relationship between child reported physical abuse and motor development of the children. Material used for data collection include Physical abuse questionnaire and observation and response sheet for motor growth and cognitive development. A cross sectional study among 200 each parents and children in the age 3-5 years old was conducted in rural areas of Vidarbha region. A statistically significant correlation was found between assaulting the child and cognitive development of the children as reported by the children. Negative non significant weak relationships of cognitive and motor development were found with slapping, pinching, starving, beating, pushing/pulling the child and locking the child alone in a room as reported by both the parents and the children themselves.

KEYWORDS : physical abuse, cognitive development, motor development

INTRODUCTION

Child abuse, commonly used for disciplining the child world over, has serious physical and psycho-social consequences which adversely affect the health and overall well-being of a child. According to WHO: Child abuse or maltreatment constitutes all forms of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power.(1)

Child abuse is a violation of the basic human rights of a child and is an outcome of a set of inter-related familial, social, psychological and economic factors. The problem of child abuse and human rights violations is one of the most critical matters on the international human rights agenda. In the Indian context, acceptance of child rights as primary inviolable rights is fairly recent, as is the universal understanding of it.(1)

Child abuse is a state of emotional, physical, economic and meted out to a person between the ages of 3-5 years and is a globally prevalent phenomenon. However, in India, as in many other countries, there has been no understanding of the extent, magnitude and trends of the problem. The growing complexities of life and the dramatic changes brought about by socio-economic transitions in India have played a major role in increasing the vulnerability of children to various and newer forms of abuse.(2)

The National Study on Child Abuse undertaken by the Ministry of Women and Child Development, Government of India, in 2005, attempts to understand the extent of the problem, its dimensions as well as its intensity. In addition, it examines strategies to address the problem of child abuse.

The term 'Child Abuse' may have different connotations in different cultural milieu and socio-economic situations. A universal definition of child abuse in the Indian context does not exist and has yet to be defined. According to WHO physical abuse is the inflicting of physical injury upon a child. This may include burning, hitting, punching, shaking, kicking, beating or otherwise harming a child. The most common reason for physical abuse to the child is to discipline the child. The parent or caretaker may not have intended to hurt the child. It may, however, be the result of over-discipline or physical punishment that is inappropriate to the child's age.

Parental mental illness, social isolation, single parenthood, domestic violence and socio-economic variables, such as poverty, child care burden, unemployment, and residential instability are associated with higher risks for child abuse and neglect (Wulczyn 2009).(4)

Child abuse has for a long time been recorded in literature, art and science in many parts of the world. Reports of infanticide, mutilation, abandonment and other forms of violence against children date back to ancient civilizations.(1) The historical record is also filled with reports of unkempt, weak and malnourished children cast out by families to fend for themselves. For a long time also there have existed charitable groups and others concerned with children's wellbeing who have advocated the protection of children. Nevertheless, the issue did not receive widespread attention by the medical profession or the general public until 1962, with the publication of a seminal work, the battered child syndrome, by Kempe et al. The term "battered child syndrome" was coined to characterize the clinical manifestations of serious physical abuse in young children. (5,6)

Now, four decades later, there is clear evidence that child abuse is a global problem. It occurs in a variety of forms and is deeply rooted in cultural, economic and social practices. Solving this global problem, however, requires a much better understanding of its occurrence in a range of settings, as well as of its causes and consequences in these settings.(6)

As discussed above, there is a large child population in India and a large percentage of this population is vulnerable to abuse, exploitation and neglect. There is also inadequate information about the extent of child abuse in the country. Barring a few sporadic studies, with limited scope, the attempt to understand the different forms and magnitude of child abuse across the country has been inadequate. The only information available annually is the crime data maintained by National Crime Record Bureau (NCRB).(7)

There is record of only those crimes which can be registered under the IPC or other criminal Acts. Corporal punishment, use of children for creation of pornography, exposure etc. are not reflected in National Crime Record Bureau (NCRB) data as they are not offences under the IPC. (7)

There is a gross under-reporting of crimes against children, which in itself is indicative of the low priority accorded to children by parents,

caregivers and the police. Recently reported cases, in which the police did not even lodge First Information Reports (FIR) of missing children is indicative of this. The government, which has the onerous task of implementing constitutional and statutory provisions, is concerned about the lack of data in this area. It was felt that India needs both legislation as well as large scale interventions to deal with the increasing incidence of child abuse. It was also felt that the problem of child abuse was bigger than what was either understood or acknowledged. It was in this context that the Ministry of Women and Child Development initiated the National Study on Child Abuse. (7)

AIM OF THE STUDY

The study aims at assessing the impact of physical abuse on motor growth and cognitive development of the children in the age group of 3-5 years.

OBJECTIVES OF THE STUDY

1. To find out the relationship between parent reported physical abuse and motor development of the children aged 3-5 years from rural areas of Vidarbha.
2. To assess the relationship between parent reported physical abuse and cognitive development of the children aged 3-5 years from rural areas of Vidarbha.
3. To find out the relationship between children reported physical abuse and motor development of the children aged 3-5 years from rural areas of Vidarbha.
4. To assess the relationship between children reported physical abuse and cognitive development of the children aged 3-5 years from rural areas of Vidarbha.

METHODOLOGY

Setting of the study: The study is conducted in selected rural areas (Sawangi, Sewagram, Deoli, Nandora and Nagapur villages) of Vidarbha.

Sample: Children in the age group of 3-5 years and their parents

Sample Size: The sample size selected for this study is 200 parents and 200 children in the age group of 3-5 yrs.

Sampling Technique: Non probability purposive sampling technique (1 child:1 parent)

Criteria for Sample Selection: The study includes children in the age group of 3-5 years; and their parents; both males and females and those who are cooperative, willing to participate in the study and available at the time of data collection.

This study excludes the parents and children of 3-5 years who are mentally challenged, physically challenged, and those suffering from any chronic systemic diseases (e.g. congenital heart diseases). Also only one child per parent is recruited in the study.

Variables under study: Reported Physical abuse, motor development and cognitive development

MATERIAL

a) Structured response sheet for Demographic data gives baseline information of child such as Age, Gender and birth order, and for parents it seeks information about age, occupation, family income, education, religion, etc.

- b) Structured questionnaire records responses for physical abuse from parents and children
- c) Structure observation and response sheet for recording motor growth and cognitive development.

Method of data collection

The study proposal was approved by the Institutional Ethics Committee of DMIMS(DU). Parents were explained about the study and written informed consent was taken from them. They were

interviewed face to face in their family setting. The questionnaire for children was shown to their parents. A separate informed written consent was also taken from parents for asking questions to their children. However, the children were asked questions in the premises of Anganwadi independently and exclusively by female data collectors. For this written consent was taken from Anganwadi workers also. On an average 8 children and their parents were interviewed in a day by two separate teams of interviewers (five in each team) who were trained for data collection. The educational level of the data collectors is final year (4th year) Basic B.Sc. Nursing. The data is analyzed by using descriptive statistics and inferential statistics.

OBSERVATIONS & RESULTS

The study aimed at assessing the relationship between reported physical abuse and motor and cognitive development of the children in the age group of 3-5 years. The findings of the study are discussed in two parts, namely, the distribution of sample according to the demographic characteristics and relationship between reported physical abuse with motor and cognitive development of the children.

Table 1: Distribution of children according to their demographic characteristics

N1=200

Demographic variables		Frequency	Percentage
1 } Age in month			
A.	36 - 41 Months	64	32.0
B.	42 - 47 Months	36	18.0
C.	48 - 53 Months	39	19.5
D.	54 - 60 Months	61	30.5
2 } Gender			
A.	Male	101	50.5
B.	Female	99	49.5
3 } Birth Order			
A.	1	122	61.0
B.	2	71	35.5
C.	3	6	3.0
D.	4	1	0.5

Distribution of children according to their age in months shows that 32% of children were in age group of 36-41 months, 18% of children were in age group of 42-47 months, 19.5% of children were in age group of 48-53 months, 30.5% of children were in age group of 42-47 months respectively. 50.5% of children were males and 49.5% of children were females. 61% of children were first child, 35.5% of children were 2nd child, 3% of children were belongs to 3rd child and 0.5% of children were 4th child in the family. (Table 1)

Table 2: Distribution of Parents according to their demographic characteristics

N2=200

Demographic Characteristics		Frequency	Percentage
1} Religion			
1 - Hindu		157	78.5
2 - Buddhism		32	16.0
3 - Christian		0	0
4 - Muslim		11	5.5
2} Parents Age In Years			
1 - 21 - 25 Years		37	18.5
2 - 26 - 30 Years		85	42.5
3 - 31 - 35 Years		49	24.5
4 - 36 - 40 Years		29	14.5
3} Parents Education			
1 - Illiterate		4	2.0
2 - Primary 1 - 4		30	15.0
3 - Secondary 5 - 10		36	18

4 – Higher Secondary 11 – 12	80	40
5 – Graduation	30	15
6 – Post graduation	5	2.5
7 - Other	15	7.5
4) Family Income		
1 – Less Than Rs 5000	40	20
2 – Rs 5001 – Rs10000	48	24.0
3 – Rs 10001 – Rs 15000	50	25.0
4 – Rs 15001 – Rs 20000	30	15.0
5 - More Than Rs 20000	32	16.0
5) Head of The Family		
1 – Grandfather	5	2.5
2 – Grandmother	5	2.5
3 – Father	185	92.5
4 – Mother	5	2.5
5 – Other	0	0
6) Relation With Child		
1 – Mother	122	61
2 – Father	78	39
7) Occupation		
1 – Housewife	94	47.0
2 – Laborer	31	15.5
3 – Farmer	45	22.5
4 - Other	30	15.0

According to religion of participants 78.5% are Hindu, 16% are Buddhist and 5.5% are Muslims. Distribution of parents according to age in years reveals that 18.5% of parents are in 21-25 years age group, 42.5% are in 26-30 year age group, 24.5% are in 31-35 year age group and 14.5% of parents are in 36-40 year age group. According educational level of parents, 2% parents are illiterate, 15% parents have completed their primary education, 18% parent have completed their secondary education, 40% parents have completed their higher secondary education, 15% parents have completed their graduation, 2.5% parents have completed their post graduation and 7.5% parents have other education.

According to family income, 20% of parent have it below Rs.5000/- per month, 24% of parents have between Rs. 5001-10000 per month, 25% of parents have between Rs. 10001-15000 per month, 15% of parents have between Rs. 15001-20000 per month and 16% of parents have it above Rs. 20000 per month. 2.5% families have grandfather as their head, 2.5% families have grandmother, 92.5% family have father and 2.5% family have mother as their head. 61% parents were mothers of the children and 39% were fathers of the children. 47% were housewives, 15.5% were laborer, 22.5% farmer and 15% parents were with other occupation.

Table 3: Relationship between child reported physical abuse and cognitive development of children

Variables	Mean	SD	"r"	"p"
Slapping the child	1.3150	1.03495	0.054	0.447 NS, p>0.05
Cognitive development	31.7100	6.75232		
Pinching	0.2950	0.64033	0.037	0.600 NS, p>0.05
Cognitive development	31.7100	6.75232		
Beating	0.4150	0.76531	0.077	0.279 NS, p>0.05
Cognitive development	31.7100	6.75232		
Locking the child in a room alone	0.1700	0.53152	0.123	0.083 NS, p>0.05
Cognitive development	31.7100	6.75232		
Starving the child	0.1250	0.53929	-0.047	0.513 NS, p>0.05

Cognitive development	31.7100	6.75232	0.099	0.162 NS, p>0.05
Beating the child after quarrel with another family member (Projecting your anger)	0.1300	0.51422		
Cognitive development	31.7100	6.75232	0.113	0.111 NS, p>0.05
Keeping the child out of the house as punishment	0.9800	1.04646		
Cognitive development	31.7100	6.75232	0.077	0.279 NS, p>0.05
Throwing away/pushing/pulling the child away from you	0.2950	0.79444		
Cognitive development	31.7100	6.75232	0.038	0.594 NS, p>0.05
Threatening the child	0.2400	0.78452		
Cognitive development	31.7100	6.75232	-0.202	0.004 S, p<0.05
Assaulting the child (Punishment)	2.7500	1.67077		
Cognitive development	31.7100	6.75232		

Cognitive development has statistically non significant (p>0.05) weak negative relationship with starving(r=-0.047) the child and has statistically significant (p<0.05) negative correlation with assaulting the child as punishment by the primary caregivers(r = -0.202, p=0.004) as reported by the children. However, Motor development statistically non significant (p>0.05) weak positive correlation with pinching (r=0.037), slapping(r=0.54), beating(r=0.077), beating(r=0.099), locking the child alone in a room(r=0.123), keeping the child out of the house(r=0.113), throwing/pushing away the child(r=0.077) and Threatening the child (r=0.038) as reported by the parents. (table 3)

Table 4: Relationship between child reported physical abuse and motor development of children

Variables	Mean	SD	"r"	"p"
Slapping the child	1.3150	1.03495	0.020	0.776
Motor development	35.7750	6.77153		
Pinching	0.2950	0.64033	-0.009	0.900
Motor development	35.7750	6.77153		
Beating	0.4150	0.76531	0.016	0.820
Motor development	35.7750	6.77153		
Locking the child in a room alone	0.1700	0.53152	0.027	0.700
Motor development	35.7750	6.77153		
Starving the child	0.1250	0.53929	-0.060	0.401
Motor development	35.7750	6.77153		
Beating the child after quarrel with another family member (Projecting your anger)	0.1300	.51422	-0.007	0.917
Motor development	35.7750	6.77153		
Keeping the child out of the house as punishment	0.9800	1.04646	0.060	0.402
Motor development	35.7750	6.77153		
Throwing away/pushing/pulling the child away from you	0.2950	0.79444	0.039	0.579
Motor development	35.7750	6.77153		
Threatening the child	0.2400	0.78452	0.084	0.237
Motor development	35.7750	6.77153		
Assaulting the child (Punishment)	2.7500	1.67077	-0.112	0.116
Motor development	35.7750	6.77153		

Motor development of the children has statistically non significant (p>0.05) weak negative relationship with pinching(r= -0.009), starving the child(r= -0.060), beating the child after a quarrel with the spouse/other family member (r= -0.007), and assaulting

(spanking) the child by the primary caregivers($r=-0.112$) as reported by the children. Statistically non significant ($p>0.05$) weak positive correlation is found between motor development and child reported slapping($r=0.020$), beating($r=0.016$), keeping the child out of house as punishment($r=0.060$), throwing away/pushing/pulling the child($r=0.039$) and threatening the child($r=0.084$).(table 4)

Table 5: Relationship between parent reported physical abuse and cognitive development of children

Variables	Mean	SD	"r"	"p"
Slapping the child	1.5000	0.92427	-0.018	0.803
Cognitive development	31.7100	6.75232		NS, $p>0.05$
Pinching	0.2100	0.50714	0.088	0.214
Cognitive development	31.7100	6.75232		NS, $p>0.05$
Beating	0.8700	1.02389	0.056	0.434
Cognitive development	31.7100	6.75232		NS, $p>0.05$
Locking the child in a room alone	0.1150	0.43902	0.052	0.465
Cognitive development	31.7100	6.75232		NS, $p>0.05$
Starving the child	0.0450	0.28878	0.089	0.209
Cognitive development	31.7100	6.75232		NS, $p>0.05$
Beating the child after quarrel with another family member (Projecting your anger)	0.3000	0.53048	0.031	0.659
Cognitive development	31.7100	6.75232		NS, $p>0.05$
Keeping the child out of the house as punishment	0.1050	0.39338	0.012	0.871
Cognitive development	31.7100	6.75232		NS, $p>0.05$
Throwing away/pushing /pulling the child away from you	0.1500	0.47817	0.034	0.635
Cognitive development	31.7100	6.75232		NS, $p>0.05$
Threatening the child	0.0700	0.43131	0.031	0.661
Cognitive development	31.7100	6.75232		NS, $p>0.05$
Assaulting the child (Punishment)	4.6450	2.48594	-0.015	0.828
Cognitive development	31.7100	6.75232		NS, $p>0.05$

Cognitive development of the children has statistically non significant ($p>0.05$) weak negative relationship with slapping ($r = -0.018$) and assaulting the child as punishment (Spanking)($r=-0.015$) by the primary caregivers as reported by the parents. Cognitive development has weak positive statistically non significant ($p>0.05$) relationship with threatening the child ($r = 0.031$), Pushing/throwing away the child ($r = 0.034$), restricting the child from entering the house ($r=0.012$), beating the child after a quarrel with another family member ($r = 0.031$), starving the child ($r = 0.089$), locking the child in a room alone ($r = 0.052$), beating the child ($r = 0.056$) and pinching the child ($r = 0.088$).(Table 5)

Table 6: Relationship between parent reported physical abuse and motor development of children

Variables	Mean	SD	"r"	"p"
Slapping the child	1.5000	0.92427	-0.047	0.509
Motor development	35.7750	6.77153		NS, $p>0.05$
Pinching	0.2100	0.50714	0.017	0.814
Motor development	35.7750	6.77153		NS, $p>0.05$
Beating	0.8700	1.02389	-0.074	0.299
Motor development	35.7750	6.77153		NS, $p>0.05$
Locking the child in a room alone	0.1150	0.43902	-0.034	0.638
Motor development	35.7750	6.77153		NS, $p>0.05$
Starving the child	0.0450	0.28878	0.000	0.999
Motor development	35.7750	6.77153		NS, $p>0.05$

Motor development	35.7750	6.77153		
Beating the child after quarrel with another family member (Projecting your anger)	0.3000	0.53048	-0.006	0.930
Motor development	35.7750	6.77153		NS, $p>0.05$
Keeping the child out of the house as punishment	0.1050	0.39338	-0.059	0.407
Motor development	35.7750	6.77153		NS, $p>0.05$
Throwing away/pushing /pulling the child away from you	0.1500	0.47817	-0.050	0.482
Motor development	35.7750	6.77153		NS, $p>0.05$
Threatening the child	0.0700	0.43131	0.014	0.844
Motor development	35.7750	6.77153		NS, $p>0.05$
Assaulting the child (Punishment)	4.6450	2.48594	-0.051	0.476
Motor development	35.7750	6.77153		NS, $p>0.05$

Motor development of the children has statistically non significant ($p>0.05$) weak negative relationship with slapping($r= -0.047$), beating the child($r= -0.074$), locking the child alone in a room($r= -0.034$), beating the child after a quarrel with the spouse/other family member($r= -0.006$), keeping the child out of the house($r= -0.059$), throwing/pushing away the child($r= -0.050$) and assaulting (spanking)($r= -0.051$) the child by the primary caregivers as reported by the parents. A weak positive statistically non significant ($p>0.05$) relationship is found between motor development and parent reported pinching ($r = 0.017$) and threatening the child ($r=0.014$). There is no relationship between parent reported starving the child and motor development of the children ($r=0.000$).(table 6)

DISCUSSION

The study aims at assessing the relationship between physical abuse of children in the age group of 3-5 years with their cognitive and motor development. The findings reveal that a good number of parents themselves reported that they cause physical abuse to their children at least once in a week. The nature of abuse includes slapping, pinching, beating, threatening, locking in dark empty room, restricting from entering the house for long hours, not providing essential daily meals/food, punishing the children for others wrong deeds, etc. The children on the other side reported that they are abused physically for not obeying the parents, they are slapped, pinched, threatened, scarred to burn or throw off the terrace/staircase, and restricted from mingling with other children.

Cognitive development has statistically non significant ($p>0.05$) weak negative relationship with starving the child and has statistically significant ($p<0.05$) negative correlation with assaulting the child as punishment by the primary caregivers($r = -0.202$, $p=0.004$) as reported by the children. However, Motor development statistically non significant ($p>0.05$) weak positive correlation with pinching, slapping, beating, locking the child alone in a room, keeping the child out of the house, throwing/pushing away the child and Threatening the child as reported by the parents. (table 3) Motor development of the children has statistically non significant ($p>0.05$) weak negative relationship with pinching, starving the child, beating the child after a quarrel with the spouse/other family member, and assaulting (spanking) the child by the primary caregivers as reported by the children. Statistically non significant ($p>0.05$) weak positive correlation is found between motor development and child reported slapping, beating, keeping the child out of house as punishment, throwing away/pushing/pulling the child and threatening the child.(table 4)

Cognitive development of the children has statistically non significant ($p>0.05$) weak negative relationship with slapping and assaulting the child as punishment (Spanking) by the primary caregivers as reported by the parents. Cognitive development has

weak positive statistically non significant ($p>0.05$) relationship with threatening the child, Pushing/throwing away the child, restricting the child from entering the house, beating the child after a quarrel with another family member, starving the child, locking the child in a room alone, beating the child and pinching the child. (Table 5)

Motor development of the children has statistically non significant ($p>0.05$) weak negative relationship with slapping, beating the child, locking the child alone in a room, beating the child after a quarrel with the spouse/other family member ($r= -0.006$), keeping the child out of the house, throwing/pushing away the child and assaulting (spanking) the child by the primary caregivers as reported by the parents. A weak positive statistically non significant ($p>0.05$) relationship is found between motor development and parent reported pinching and threatening the child. There is no relationship between parent reported starving the child and motor development of the children ($r=0.000$). (table 6)

These findings are supported by following studies. Recent surveys of this type have been completed in a number of countries, including Australia, Brazil, Canada, Chile, China, Costa Rica, Egypt, Ethiopia, India, Italy, Mexico, New Zealand, Nicaragua, Norway, Philippines, the Republic of Korea, Romania, South Africa, the United States and Zimbabwe (9, 11–12, 14, 15–17).

When parents of older children are questioned about their use of physical punishment over short referent periods (e.g., over the previous month or year), the percent who admit using such discipline varies between 17% (DiLalla, Mitchell, Arthur & Pagliocca, 1988), 57% (Lefkowitz, Walder & Eron, 1963), and 71% (Gelles, 1978). However, when adult individuals are questioned about their own exposure to physical punishment over their entire childhood, much higher percentages are reported: for example, Deley (1988) found that 89% of his subjects reported that they had experienced physical punishment; similarly, 95% of Bryan and Freed's (1982) subjects recalled experiencing such punishment. Further, studies of toddlers almost always show rates of over 90% (e.g., Sears, Maccoby & Levin, 1957; Straus, 1990). Thus, it seems very likely that a vast majority of Americans are subjected to corporal punishment at one point or another during their lifetime.

The widespread nature of physical punishment has brought into question its relevance in the development of aggressive behavior. Almost all individuals are physically punished, yet only a fraction ever develop deviant, violent behavior.

Physical punishment may be a contributing factor, but not a sufficient precondition, for the development of violence or aggression. It seems implausible that only a simple, one-on-one causal relationship could exist between any parental aggression and the development of deviant violence (Curtis, 1963; Spatz Widom, 1989b). Researchers have observed that childhood violence experiences appear to be mediated by other developmental factors (Miller & Challas, 1981). Therefore, it appears to be inappropriate to dismiss the study of theoretically important variables on the basis of a weak one-on-one relationship.

Six studies have questioned individuals for their retrospective recall of physical punishment experiences during childhood. In a nationwide survey of 1,176 adult respondents, Owens and Straus (1975) found a significant positive correlation between the frequency of interpersonal violence received as a child and approval of the use of violence interpersonally. Their measure of violence received as a child merged physical punishment (e.g., spanking) and abusive violence (e.g., punching, choking). No direct measure of aggressive behavior was made.

The remaining five studies focused on self-reported aggressive behavior in adults. Bryan and Freed (1982) questioned 170 community college students about their history with physical punishment and their self-reported "problems with aggression." They found that students who reported having received a "high"

amount of corporal punishment reported significantly more problems with aggression (among other difficulties).

The remaining four studies specifically examine family violence as an outcome. Parke and Collmer (1975) found that abusive parents often had recollections of "physically punitive childhood experiences." The recollected violence was usually severe enough to be regarded as abuse, rather than as physical punishment. In 1977, Carroll studied 96 adults and found that 36.6% of those who had rated their childhood experiences as "high" physical punishment were violent, compared to only 14.5% of those who reported experiencing "low" physical punishment.

In a similar design, Caesar (1988) found that a sample of 26 wife batterers recalled more parental use of physical punishment than a sample of 18 nonviolent men (58% versus 31%). Finally, Gelles (1974) found that respondents who recalled being hit by their parents frequently (six or more times per year) were far more likely to physically fight with their spouse than were respondents who recalled being infrequently hit.

Cross-sectional research designs have examined the co-existence of physical punishment and aggression in children. For example, Straus (1983) found, in a nationally representative sample of children (whose ages ranged from 3 to 17 years old), that 15% of children who were not physically punished "repeatedly and severely attacked a sibling," compared to 40% of children who were physically punished (but not abused), and 76% of children who were repeatedly abused.

1. Pre-School Age Children. Larzelere (1986) examined subjects drawn from Straus' (1983) sample, but conducted analyses separately by age group. In the age group three to six years old, Larzelere found a linear relationship between the frequency of spanking and the frequency of aggression towards siblings and parents. Sears, Whiting, Nowlis, and Sears (1953) studied 40 three and four year olds and also found a linear relationship between physical punishment and aggression, but only for the boys in the sample. Becker, Peterson, Luria, Shoemaker, and Hellmer (1962) examined boys and girls separately and noted that physical punishment of girls was associated with aggression at home, while boys who were physically punished tended to behave aggressively in general. Sears, Maccoby and Levin's classic (1957) study found a positive, significant correlation between parental use of physical punishment and child's aggression in the home.

In contrast to these findings, Yarrow, Campbell and Burton (1968), in a replication of Sears, Maccoby and Levin's (1957) design, found no statistically significant correlation between their measure of parental use of physical punishment and child's aggression. Further, Schuck (1974) conducted path analyses on the data from both Sears, Maccoby, and Levin (1957) and Yarrow, Campbell and Burton (1968). The purpose was to examine the impact of physical punishment on aggressive behavior. He found that the two sets of data yielded similar path results: in both cases, physical punishment was not related significantly to the child's aggression.

Literature suggests equally that physically-punished children become aggressive and that aggressive children are more often physically punished (Bell, 1979)

A 1995 survey in the United States asked parents how they disciplined their children (9). An estimated rate of physical abuse of 49 per 1000 children was obtained from this survey when the following behaviours were included: hitting the child with an object, other than on the buttocks; kicking the child; beating the child; and threatening the child with a knife or gun. Available research suggests that the rates for many other countries are no lower, and may be indeed higher than the estimates of physical abuse in the United States.

In a cross-sectional survey of children in Egypt, 37% reported being

beaten or tied up by their parents and 26% reported physical injuries such as fractures, loss of consciousness or permanent disability as a result of being beaten or tied up (11).

In a recent study in the Republic of Korea, parents were questioned about their behaviour towards their children. Two-thirds of the parents reported whipping their children and 45% confirmed that they had hit, kicked or beaten them (15).

A survey of households in Romania found that 4.6% of children reported suffering severe and frequent physical abuse, including being hit with an object, being burned or being deprived of food. Nearly half of Romanian parents admitted to beating their children "regularly" and 16% to beating their children with objects (17).

In Ethiopia, 21% of urban schoolchildren and 64% of rural schoolchildren reported bruises or swellings on their bodies resulting from parental punishment (11).

Data that are more comparable come from the World Studies of Abuse in the Family Environment (WorldSAFE) project, a cross-national collaborative study. Investigators from Chile, Egypt, India and the Philippines administered a common core protocol to population-based samples of mothers in each country to establish comparable incidence rates for harsh and more moderate forms of child discipline. Specifically, the researchers measured the frequency of parental discipline behaviours, without labelling harsh discipline as abusive, using the Parent-Child Conflict Tactics Scale (8-9, 13).

Other data to determine risk and protective factors were also routinely collected in these studies. The results are compared to those from a national survey conducted in the United States using the same instrument (9). It is clear that harsh parental punishment is not confined to a few places or a single region of the world.

Parents in Egypt, rural areas of India, and the Philippines frequently reported, as a punishment, hitting their children with an object on a part of body other than the buttocks at least once during the previous 6 months. This behaviour was also reported in Chile and the United States, though at a much lower rate. Harsher forms of violence – such as choking children, burning them or threatening them with a knife or gun – were much less frequently reported.

Similar parental self-reports from other countries confirm that harsh physical punishment of children by their parents exists in significant amounts wherever it has been examined. In Italy, based on the Conflict Tactics Scales, the incidence of severe violence was 8%. (15) Tang indicated an annual rate of severe violence against children, as reported by the parents, of 461 per 1000 in China (Hong Kong SAR). (17)

Another study, comparing rates of violence against primary school-aged children in China and the Republic of Korea, also used the Conflict Tactics Scales, though with the questions being directed at the children rather than their parents. (16)

In China, the rate of severe violence reported by the children was 22.6%, while in the Republic of Korea it was 51.3%. Data from the World SAFE study are also illuminating about patterns of more "moderate" forms of physical discipline in different countries. Moderate discipline is not universally agreed to be abusive, though some professionals and parents regard such forms of discipline as unacceptable. In this area, the World SAFE study suggested a wider divergence among societies and cultures. Spanking children on the buttocks was the most common disciplinary measure reported in each country, with the exception of Egypt, where other measures such as shaking children, pinching them, or slapping them on the face or head were more frequently used as punishment. Parents in rural areas of India, though, reported slapping their children on the face or head about as often as slapping them on the buttocks, while in the other countries slapping children on the face or head occurred less often.

The parents report physical abuse less in severity as compare to the children reporting it. This is because the children are victim of the physical abuse by their parents and other elderly in the family and around. With increasing literacy and spread of education, the severity of physical abuse may be found decreasing. However, the reports of physical abuse show increasing trends.

The investigators did not find any study that studied the relationship between motor development and physical abuse and cognitive development of children and physical abuse.

CONCLUSION

Physical abuse in children aged 3-5 years can be considered as common as eating a meal or any other daily ritual. Many times children are abused for disciplining. Slapping, pinching, beating, making the child starve, throwing the child away, threatening the child and restricting them from mingling with others are common types of physical abuse to children while disciplining them. The study findings do not reveal any statistically significant relationship between reported physical abuse and motor growth and cognitive development of the children in the age group of 3-5 years. The weak positive relationship of cognitive and motor development with some types of physical abuse indicates that though not very significant, but the physical abuse may in long run have impact on the motor and cognitive development of children in the age group of 3-5 years.

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