

## AN EPIDEMIOLOGICAL STUDY ON CHILD NEGLECT AND ITS EFFECT ON PSYCHO-SOCIAL DEVELOPMENT OF GIRL CHILD IN RURAL AREAS OF LUCKNOW DISTRICT

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### Abstract:

**Research Question:** What are the various areas of girl child neglect and how it affects the psycho-social development of girl child.

### Objectives:

1. To study the various aspects of girl child neglect.
2. To study the effect of various socio-demographic correlates of psycho-social development of girl child.

**Study Design:** Cross Sectional.

**Study Unit:** Girl child (0-72 month).

**Study Area:** Rural field practice area of Department of Community Medicine, King George's Medical University, Lucknow.

**Study Variables:** Independent :- Socio-demographic, environmental factors (e.g.-birth order, education, sanitation etc.), physical and psychological component of neglect. Dependent :- socio-developmental quotient.

**Statistical Analysis:** chi square test logistic regression.

**Result:** Out of the 400 subjects studied, Sub-normal socio-developmental quotient ( $SDQ < 90$ ) was found in 8.2% girl child. Birth order, access to improved water source, type of cooking fuel and neglect in cloths allocation, initiation of schooling, need of care and protection and domestic violence against girl in comparison to oys were found to be significantly associated with sub-normal socio-development. Out of these birth order, access to improved water source, initiation of schooling, need of care and protection were found independent predictor of sub-normal socio-development.

**Key Words:** Girl child, VSMS, Socio-development Quotient.

### Introduction:

The girl child of today is the woman of tomorrow. Girl children (0-72 months) in rural areas constitute three-fourth of the pool of 78.8 millions (7.6% of total population), 46% of these girl children are underweight (below 2SD), (DLHS, 2002)<sup>1</sup>. Independent studies have suggested that neglect in food, clothing, affection vis-à-vis boys has adverse affect on normal psychological development of girl child.

According to Census2, the juvenile sex

ratio (0-6 age group), had fallen sharply from 962 (1981) to 927 (2001) (corresponding figure for UP was 898), while sex ratio at birth has improved from 927 (1991) to 933 (2001). The adverse juvenile female to male ratio is indirect reflection of the biased and negligent attitude of the community towards the girl child which is prevalent in several parts of the country<sup>4</sup>.

### Objective:

To study the various aspects of girl child neglect and how various socio-demographic,



environmental and various components of neglect affect the psycho-socio development of girl child.

#### Material and Method :

The study was conducted during August 2005 to September 2006 in Experimental Teaching Health Sub Center (ETHSC) Banthara and Mati Covering 11 Villages and Hindu Kheda, an adopted village for mobile health services. A sample of 400 was studied, based on prevalence (p) of 46% for underweight (wt<-2SD) among girl-child (0-<72 months) with absolute permissible error of 5% at 95% confidence limit. Additional 10% subjects were taken extra to account for non response. Requisite sample size was reached by first deciding the number of household to be taken for the survey in Banthara, Mati and Hindu Kheda according to Population Proportion to Size (PPS) and then Simple Random technique was used to select the household to be included in the survey. Hindi version of Vineland Social

Maturity of Scale (VSMS, Nagpur adaptation by Malin, 1968), was used to calculate socio-developmental age and a socio-developmental quotient of girl child which was taken as an indicator of psycho-social development of girl child.

#### Observation and Discussion

The study had shown that subnormal Socio-developmental Quotient (<90) was present in 33 (8.2%) out of total 400 girl child. Birth order of the girl-child had shown significant association with subnormal Socio-development, while religion, caste, family size, educational level or socioeconomic status of parent was not statistically significant. **R. Pande et al<sup>5</sup> (2005)** showed that whether parents discriminate against a daughter depends on the sex of her older siblings, if a family already has a daughter, they are likely to neglect a second. Girls with two or more older sisters are the most neglected :

Table-1

#### ASSOCIATION OF SOCIO-DEVELOPMENTAL QUOTIENT OF GIRL CHILD WITH DEMOGRAPHIC CHARACTERISTICS

Demographic Characteristics		No. of girls	Socio-development Quotient				P value
			Normal & above		Below Normal		
			No.	%	No.	%	
Religion	Hindu	386	353	91.5	33	8.5	0.25
	Muslim	14	14	100.0	0	0.0	
Caste	General	54	50	81.5	4	7.4	0.05
	Backward	184	170	92.4	14	7.6	
	SC/ST	148	139	93.9	9	6.1	
Type of Family	Joint	295	272	92.2	23	7.8	0.58
	Nuclear	105	95	90.5	10	9.5	



Edu cation of father.	Illiterate	152	144	94.7	8	5.3	0.20
	Just literate	89	83	93.3	6	6.7	
	Primary/Middle	128	113	88.3	15	11.7	
	Up to high school	15	12	80.0	3	20.0	
	Above high school	1	10	90.9	1	9.1	
	Graduate and above	5	5	100.0	0	0.0	
Edu cation of father	Illiterate	77	73	94.8	4	5.2	0.26
	Just literat	37	34	91.9	3	8.1	
	Primary/Middle	196	182	92.9	14	7.1	
	Up to high school	43	37	86.0	6	14.0	
	Above high school	39	33	84.6	6	15.4	
	Graduate and above	8	8	100.0	0	0.0	
Birth order	I	97	93	95.9	4	4.1	0.04*
	2-3	211	187	88.6	24	11.4	
	4+	92	87	94.6	5	5.4	
SES	I	6	6	100.0	0	0.0	0.32
	II	48	42	87.5	6	12.5	
	III	97	91	93.8	6	6.2	
	IV	138	123	89.1	15	10.9	
	V	111	105	94.6	6	5.4	
Family size	<5	112	104	92.9	8	7.1	0.71
	5-6	155	140	90.3	15	9.7	
	>6	133	123	92.5	10	7.5	

\*Significant ( $P < 0.05$ )

The table-2 shows association of subnormal socio-develop (SD.Q) with environmental characteristics. Use of solid fuel for cooking was found significantly

associated with subnormal SD.Q whereas no association was found with type of drinking water source, sanitation facility and hygienic status of the environment.

Table-2

## ASSOCIATION OF SOCIO-DEVELOPMENTAL QUOTIENT OF GIRL CHILD WITH ENVIRONMENTAL CHARACTERISTICS

Environmental characteristics		No. of girls	Socio-development Quotient				X <sup>2</sup> , P-value
			Normal & above		Below Normal		
			No.	%	No.	%	
Water facility	Improved water source	359	347	96.6	29	12.3	0.07
	Unimproved water source	41	20	48.7	4	10.1	
Sanitation facility	Improved sanitation	84	78	92.8	6	7.1	0.67
	Unimproved sanitation	316	289	91.5	27	8.5	
Type of fuel	Solid	227	202	88.9	25	11.0	0.02*
	Non-solid	173	165	95.3	8	4.6	
Hygienic status	Hygienic	122	113	92.6	9	7.4	0.67
	Non-hygienic	278	254	91.4	24	8.6	

\*Significant (P&lt;0.05)

The table-3 shows subnormal socio-developmental quotients was significantly associated with neglect in clothing, psycho-social support, age of initiation of schooling and violence vis-a-vis boys; where as no statistical association was seen with food allocation. **Shanti Ghosh, Mankekar et al of world watch institute (1992)<sup>4</sup>** showed gender bias brings in grossly unequal allocation of resources for girl child with regard to food, nutrition, education, health and medical care.

The table-4 shows that on applying Multinomial logistic regression to determine the independent role played by the important

predictor for below or subnormal socio-development quotient status (SD.Q<90) (after removing the confounding effects of other factors), it was observed that first birth order was found to be associated normal socio-development quotient status (SD.Q) (negative  $\beta$  coefficient). Similarly absence of neglect in cloth allocation, age of initiation of schooling and violence against girl child vis-a-vis boys had 0.7, 0.4 and 4.4 times odds of subnormal (<90) Socio-developmental quotient respectively. Type of fuel used in household was not an independent factor in determining the socio-developmental quotient.



Table-3  
ASSOCIATION OF SOCIO-DEVELOPMENTAL QUOTIENT OF GIRL CHILD WITH CHILD NEGLECT

Characteristics		Socio-development Quotient				P-value
		Normal & above		Below Normal		
		No.	%	No.	%	
Food Allocation	Neglect absent	118	93.7	8	6.3	0.34
	Neglect present	249	90.9	25	9.1	
Cloths Allocation	Neglect absent	213	94.7	12	5.3	0.02*
	Neglect present	154	88.0	21	12.0	
Age for initiation of schooling	Neglect absent	277	95.2	14	4.8	0.000*
	Neglect present	90	82.6	19	17.4	
Need of care and protection (safety)	Neglect absent	239	88.8	30	11.2	0.002*
	Neglect present	128	97.7	3	2.3	
Psychosocial support & stimulation	Satisfactory	234	95.9	10	4.0	0.001*
	Unsatisfactory	133	85.2	23	14.7	
Violence against girl child	Absent	329	94.8	20	5.7	0.001*
	Present	40	75.4	13	24.5	

\*Significant (P<0.05)

Table-4

**PREDICTORS ASSOCIATED WITH BELOW NORMAL SDQ STATUS (<90) OF GIRL CHILD USING MULTIPLE LOGISTIC REGRESSION**

Factors		$\beta$ coefficient	SE	Odds Ratio (OR)	95% CI of OR
Birth order 0=>1, 1=1	1	-0.18	0.73	0.8	2.0-3.5*
	2-3	0.55	0.55	1.7	0.6-5.1
	4+				
Type of fuel used for cooking		0.37	0.46	1.4	0.6-3.5
Neglect in cloths allocation for girl		-0.32	0.41	0.7	0.3-1.6
Age of initiation for schooling		-0.96	0.40	0.4	0.2-0.8*
Need of care and protection		-1.33	0.64	0.3	0.1-0.9*
Violence against girl child		1.50	0.50	4.4	1.7-11.9*
Constant=-1.66					

-2 Loglikelihood=182.69,  $R^2=0.25$ , \*significant

#### Conclusion :

Among all the predictors of subnormal socio-developmental first birth order was found to be an independent predictor. Age of initiation of schooling, violence against girl child and neglect in need of care and protection were also found to be an independent predictor of subnormal psycho-socio developmental.

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