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A Study of Risk Factors in Children with Developmental Delay below 5 Years of Age

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Abstract: The study is an attempt to find out the risk factors in children with developemental delay below 5 years of age. Thirty children were taken for the study. The children's age ranged from 1 to 5 years. Who were attending Sweekar Rehabilitation Institute for Handicapped, Secunderabad. The scales used were Risk Factor check list and Denver developmental schedule.

The data were qualitatively analised and the results are discussed. Results reveal that consanguinity, mother's age, nutritional deficiency, hypertention, jaundice are significant risk factors reported during prenatal stage. Bleeding during pregnancy, attempted abortion where some of the risk factors during perinatal stage. Deloyed birth cry, low birth weight are the risk factors during perinatal stage.

Finally, seizure, head injury, jaundice are the significant rik factors during postnatal stage. Results also show that, mother's age above 35 years also significant risk factors.

Keywords: Developmental Delay, Risk Factor, Prenatal, Perinatal, Postnatal, Injury, Disorder

I. INTRODUCTION

High risk because of adverse genetic, prenatal, perinatal, neonatal, postnatal or environmental influences may lead to subsequent development of a handicap or developmental deviation, it is important to note that a handicap is often associated with preceding high risk factors, however, the reverse does not always hold-that is, high risk factors are not necessarily followed by development of a handicap.

The theoretical merit of the high risk concept is based on the premise that by carefully examining a group of infants early in life who may have a greater risk of developmental or physical problems, early identification of those with problems, followed by early intervention, lead to a better chance of minimizing the deviation and promoting the child's normal development and maturing process.

Therefore, when an infant has been identified as high risk, a thorough developmental history, physical and neurological examination, and developmental screening should be done at regular intervals.

II. MATERIALS AND METHOD

The sample consists of 30 mothers who had high risk babies with developmental delay and children with autism attending Sweekaar rehabilitation institute for the handicapped, secunderabad. Parents who had children with developmental delay below the age of 5 years. Parents who had children with significant birth history. Parents of autistic children developmentally delayed and high risk babies were included and parents who had children above 5 years of age, and parents who had major physical, neurological or mental problems were excluded in this study.

A. Tools Used

1) *Socio Demographic Data Sheet:* Socio Demographic data sheet was prepared for collecting information regarding details of child's birth, developmental history and about parent's socio economic and occupational status
2) *Risk Factors Check List:* Risk factors check list was prepared for collecting information regarding details of risk factors during pre, peri and postnatal periods
3) *Denver Developmental Screening Test II:* Denver developmental screening test II was developed by Denver (revised). This screening tests is used for assessment of developmental levels of children This screening test is designed for use to the children with the age range of 15 days This scale has four areas they are: 1. Gross motor 2. Language 3. Fine motor 4. Personal and social
4) *Risk Factors Check List:* A risk factors check list was prepared for use in this study and used for assessing risk factors of children with developmental delay. This check list consists of 17 items for prenatal stage, 12 items for perinatal stage and the items were checked for presence or absence of the items for postnatal stage

Table 1 Socio Demographic Variables (N-30)

Sl.no	Variables	Number of people	%
1	Mother's age	3	
2	Father's education		
	PG	4	13.33
	UG	8	26.66
	Below	18	60
3	Mother's education		
	PG	1	3.33
	UG	8	26.66
	Below	21	70
4	Mother's Occupation		
	Working	6	20
	Non working/House wife	24	80
5	Religion		
	Hindu	24	80
	Christian	1	3.33
	Muslim	5	16.66
	Others	NIL	NIL
6	Socio economic status		
	High (20000 & above)	8	26.66
	Middle (5000 & above)	10	33.33
	Below (5000 & below)	12	40
7	Area		
	Rural	13	43.33
	Urban	17	56.66

Table 2 Frequency and % of Risk factors during Prenatal stage (N-30)

Sl.no	Risk facors	Frequency	Percentage
1	Mother's age (above 35 years)	3	10
2	Cansanguiniy	11	36.66
3	Attempted abortion	2	6.66
4	Diabetes	2	6.66
5	Bleeding during pregnancy	1	3.33
6	Nurtritional deficiency	6	20
7	Hypertension	8	26.66
8	Jaundice	7	23.33
9	Exposure to X-ray	4	13.33
10	Anaemia	1	3.33
11	Convulsion	0	0
12	Infections	1	3.33
13	STD	0	0
14	Drugs (with the trimester)	1	3.33
15	Consumption of alcohol	0	0
16	Smoking/nicotins	0	0
17	Potentially harmful medicines (specify)	0	0

Table 3 Frequency and % of Risk factors during Perinatal stage (N-30)

Sl.no	Risk Factors	Frequency	Percentage
1	Term: Premature/postmature	4	13.33
2	Delivery type caesarean/forceps	16	53.33
3	Cord around neck	0	0
4	Birth cry delayed	21	70
5	Birth weight (low & above)	11	36.66
6	Colour of the body (blue)	1	3.33
7	Activity of the baby	0	0
8	Head circumstances (abnormal)	1	3.33
9	Respiratory distress	0	0
10	Child in an incubator	10	33.33
11	Multiple pregnancy	0	0

Table 4 Frequency and % of Risk factors during Postnatal stage (N-30)

Sl.no	Risk factors	Frequency	Percentage
1	Fits	13	43.33
2	Jaundice	9	30
3	Respiratory problem	0	0
4	High fever	0	0
5	Injury	1	3.33
6	Other illness	9	30

Table 5 Comparison of developmental level and freqrequency and percentage of risk factors (N-30)

Sl.no	Developmental level	No. of Children	Risk factors	
			Frequency	Percentage
1	Below average	2	9	6.25
2	Mild	12	57	39.58
3	Moderate	9	45	31.25
4	Severe	6	30	20.35
5	Profound	1	3	2.08
			Total	99.99

III. RESULTS

Table 1 shows that education of most of the fathers is below graduate level and mothers intermediate level. Most of the mothers were house wives, and they were Hindu, socio-economic status of the most parents of children with developmental delay were low income group, also most mothers belongs to urban area. Table 2 shows that consanguinity is an important risk factors in the prenatal stage, followed by nutritional deficiency and jaundice. Schrimshow (1968) also reported the effects of malnutrition on children, and proved severe chlorine and protein deprivation existed during prenatal period. Table 3 shows that risk factors such as delivery type, premature and postmature, caesarean delivery are the risk factors for developing abnormality of the children. The findings also corroborates the ideas of Goldson et.al (1992), who suggested that the head circumstance also found significant risk factors. Table 4 shows that seizures attacks, head injury and jaundice were found as significant risk factors during postnatal period. Scot (1994) found that complication occurring at birth such as head injury, seizures disorders were the risk factors for mental retardation and cerebral palsy. Table 5 shows that severe and moderate developemental delayed children have more risk factors.

IV. CONCLUSION

The significant risk factors exist during prenatal, perinatal, neonatal and postnatal periods results in children with developmental delay and autism. Children with mild, moderate and severe developmental delay having significant risk factors. The implication of the current research helpful to identify potential risk factors during various stages of child birth.

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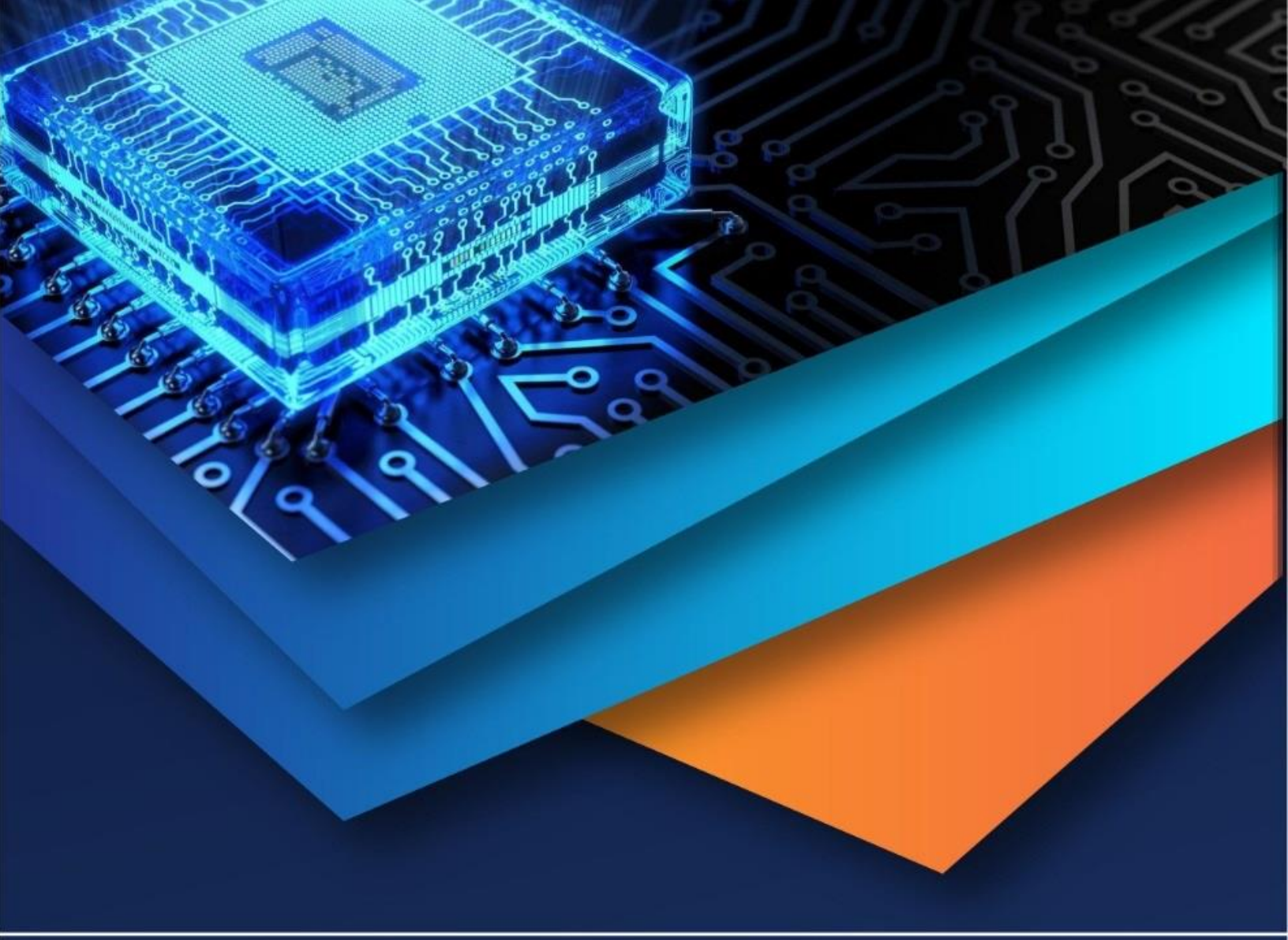

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