Journal Homepage: - www.journalijar.com
INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)
Article DOI: 10.21474/IJAR01/7247
DOI URL: http://dx.doi.org/10.21474/IJAR01/7247

RESEARCH ARTICLE

INVULNERABILITY AMONG DISADVANTAGED CHILDREN.

Pranati Satapathy.
Lecturer in Psychology , PG Department of Psychology , Ravenshaw University , Cuttack 3.

Manuscript Info

Manuscript History

Received: 10 April 2018
Final Accepted: 12 May 2018
Published: June 2018

Abstract

Introduction:-

During 1960s' the psychologists and educationalists become extremely conscious about a group of children, who failed to respond to schooling and/or lacked in certain abilities and competence. While studying these children the researchers and psychologists used the term called "Disadvantaged". They defined disadvantaged as those whose basic bio-physio-psychological and social affective-personal needs have not met or inadequately met, whose rights have been denied who suffer from prolonged deprivation and whose environment has failed to provide appropriate social support and cognitive stimulation at critical stages of life, for growth and development (Nanda, 2000). Beging from common people to researchers it is a belief that the disadvantaged children suffer from many limitations. But only a few researchers have argued and identified that there are 'talents' among the disadvantaged children.

The study of disadvantaged children are closely tied up with the studies of individual and group differences in children's abilities, achievements and psycho-social development. The poor academic performance and lower intelligence scores of the disadvantaged children were attributed to lower socio-economic-status (SES), social class etc. Subsequent research gradually revealed the detrimental influence of sensory and perceptual, linguistic and socio-emotional deprivations on development. Disadvantaged children are deprived in one or more ways and lack optional environmental stimulations needed for normal development (Nanda and Dash 1996). The crucial role of early childhood experience, cumulative deficits resulting from prolonged deprivation and appropriate school readiness etc can be attributed to lower academic performance of disadvantaged children (Tripathy and Mishra, 1975). Disadvantaged children can be identified under several sub-groups such as : (i) Economic/material disadvantages are associated with poverty, (ii) Social disadvantages associated with discrimination, segregation, stigmatization and denial of opportunities, (iii) Cultural disadvantages such as belonging to deprived, disorganized and different cultures, (iv) Linguistic disadvantages e.g. when a person's mother tongue is not accepted as media of communication, (v) Educational disadvantages such as denial of equal educational opportunities, (vi) Psychological disadvantages such as deprived of affection, care, security, stable relationship, identity, dignity, self-respect etc and (vii) Intellectual disadvantages i.e. being subject to sensory-perceptual information deprivation, lacking proper cognitive stimulation or subject to unsuitable and chaotic over stimulation (Nanda and Dash, 1996, Dash and Hariharan, 1988).

Research studies on such children have been conducted successfully on a conceptual research model for studying and identifying talents among disadvantaged children and their competence and invulnerability. In this model the external environmental conditions are dichotomized and internal conditions are divided into strong or competent and

Corresponding Author:- Pranati Satapathy.

weak or incompetent. The model proposes two dimensions for study : the ecological environment individual competence. While studying the children from both advantaged and disadvantaged categories by assessing their environmental facilities and academic competence in a cross-classification model, a typical group of children who come from deprived environmental back ground, low/uneducated parents, poor socio-economic-status were identified having markedly very high academic and behavioural competence. These children are invulnerable/resilient children.

Conceptual Research Model for Studying Invulnerability
(Nanda, 1996)

EXTERNAL CONDITION	ENVIRONMENT	INTERNAL CONDITION		
		COMPETENCE		
			Strong Competent	Weak Incompetent
		Easy Advantaged	Advantaged – Competent Lucky	Advantaged-Incompetent Rotton Apple
		Difficult Disadvantaged	Disadvantaged – Competent Invulnerable Resilient Lotus in the mud	Disadvantaged – Incompetent Vulnerable At risk

Researchers have conducted a substantial amount of emprical research in the field of invulnerability and resilience both in the Euro-American context and also in Indian context. The Kauai study by Emmy Werner and her associates (Werner and Smith, 1977) is an important investigation where the resilient children were characterized by their care givers as active, affectionate, good natured alert, responsive, sociable and easy to deal with. Children who demonstrate resiliency seem to have an outgoing social personality at all ages (Werner, 1985). Further, more communicative and more actively involved in social play activities were also noticed among such children (Werner and Smith, 1977). The early studies of Garmezy (1970), Rutter (1978, 1985) also contributed significantly in identifying the resiliency, stress resistance and invulnerability. Block and Block (1984) Burkely study present longitudinal data of 3, 4, 5, 6, 11 and 14 years old children, by their teachers who observed ego resiliency, competent novelty seekers and self relient. Werner and Smith (1982) in their book, Vulnerable but invincible; A Longitudinal Study of Resilient Children and Youth have reported that "these resilient children received and appeared to elicit greater attention as babies, more active, socially responsive viewed good natured and cuddly, they also had fewer congenital defects."

Garmezy and Rutter (1985) observed that the ability to generate humour was associated with greater social competence in the presence of stress. In Indian setting Sharma, Saraswathi and Gir (1980) found that competent children exhibited high self-concept, internal locus of control and effective coping strategies with challenging immediate environment.

The resilient children may go beyond the influence of their family network, but are not totally free from the family influence because of the fact that effective parenting may generate or increase self efficacy, provide limited opportunities for better/effective activities of their children (Bowlby, 1969; Bardura, 1997). Resilient children tend to be well liked by their peers (Garmezy, 1981; Anthony, 1984; Werner and Smith, 1987). "Protection against stimuli is more important function for the living organism than reception of stimuli" (Freud, 1922 p27) is true for invulnerable/resilient children.

Wilson (1974) found that strict parental supervision and regulation of children's peer group activities outside the home reduced the risk of delinquency for children reared in a high risk environment. West (1982) found that the delinquency rate dropped for boys from inner London who moved with their families away from the metropolies. The quality of care giving the child received after the loss rather than the loss itself was the key prediction of vulnerability to depression (Rutter, 1990). Many studies have tried to advance an explanation by studying protective/buffering role of personal and environmental factors (Rutter, 1985; Wilson, 1974). Attachment theory offers another perspective on the processes by which responsive parenting may lead to self-efficacy (Bowlby, 1969). Resiliance is characterized by some sort of action, belief with a definite aim in mind and strategy of how to achieve

the chosen objective which seems to involve several related elements and a sense of self-esteem and self-confidence (Kagan, 1983).

Anthony (1987) observed about five types of invulnerable such as (i) sociopathic uninvolved approach to the world and is strategically estranged from it, (ii) Pseudo invulnerable with over protectiveness of the mother, (iii) Invulnerable with tendency of accident prone from the endless risks, (iv) the 'true' invulnerable who perform better than ever, manifest high degree of competence, creativity tend to be healthy interpersonally skillful, popular with peers and adults, well regarded by themselves and others, active on their own behalf, characterized by a strong sense of personal control, responsible for their own actions and self-regulatory and (v) children who have bounced back and continued to rebound from high risk and vulnerabilities.

In Indian context quite a few studies about invulnerability has been taken up by psychologist. Nanda and Dash (1996) while studying disadvantaged defined 'invulnerability' as "the process involving development of the capacity to confront, withstand, overcome and benefit from the deterious life situations such as deprivation, disadvantage, stress, frustration, conflicts and crisis." Nanda (1994) in his study observed that invulnerable children guarded their self-esteem and self-worth and actively interact with the environmental adversities, instead of just reacting passively. Acharya (1995) identified invulnerable children from a normal population of high school children and investigated their cognitive motivational competencies and personal characteristics in order to understand the intra-personal dynamics promoting resilience. The significant findings were that the invulnerable children were found to have higher intelligence, creativity, academic achievement, information processing abilities, conceptual dominance and incidental memory. Panda (1998) attempted to study invulnerability as a normally distributed developing characteristic of children using environmental disadvantage/ support and competence indices to identify and study invulnerable children. It was observed that invulnerable children performed relativity better academically, superior language ability, more innovative, creative and displayed higher abstraction ability Anthony (1991) studied the environmental stress parent-child interaction, social support network. psycho-social competencies and coping style of children of alcoholics and non-alcoholics. The findings suggest that while supportive and corrective social-educational intervention programmes are necessary to offset their physical and emotional problems, counselling is necessary to promote self-reliance, invulnerability and self-growth. Hariharan (1991) studied children's competencies, environmental disadvantages and social support network and coping styles. Results showed that despite their deprivations, the invulnerable children were found to have a healthy family psychological climates and were more competent than vulnerable and were comparable to the advantaged competent children.

Rationale:-

Despite such terrible and adverse life environments, there were reports about number of children who excelled in different state level competitions, in different professional fields, as scientists, social workers and academics. Most of the studies on invulnerability have been carried out on minority children of specific ethnic groups, of psychopathic parents and / or individual cases who have extremely traumatic childhood experiences. Findings of such studies were limited in scope for generalization.

The present study planned on a large sample of children (2200) from a significantly homogenous socio-demographic environment in a specific geographical boundary would be extremely useful in understanding invulnerability. The findings of the present study would have larger scope for generalizability. Ogbu (1991), Nanda (1994) Nanda and Dash (1996) have argued that invulnerability is largely a product bounce back against the differential treatment made to an individual child due to his economic and social difference. The preceding literature, studies and research issues, and our choice of sample provide a strong rationale for the present study.

The present study was designed to assess the invulnerability of the disadvantaged children through 'Teacher's Rating Scale' with the following objectives:

i) To identify the specific personality style of invulnerable children compared to their counterparts in a defined socio-eco-cultural setting.
ii) To examine the significance of the creativity style of children in developing and maintaining academic invulnerability.
iii) To observe the physical and mental health of the invulnerable children compared to others.
iv) To assess the athletic ability of the invulnerable children.

Hypothesis I : The personality and creativity style of invulnerable children will be higher than other children.

Hypothesis II : Boys and girls under disadvantaged condition will have less personality differences among them than boys and girls under the advantaged condition.

Hypothesis III : Maximum gender differences in the personality characteristics will be observed among the boys and girls in the advantaged competent group.

Hypothesis IV : Gender difference will be more prominent in the measures of behavioural skills as assessed by Teacher's ratings.

Methods, Materials and Procedure:-

Sample:

The present study involved assessment of 200 children (50/groups of 25 boys and 25 girls) belonging to grade 8th and 9th standard selected from a population of 2200 children of different schools located in the same socio-demographic area (Block) of Puri district, Odisha, India. The sample subjects were selected on the basis of children's socio-demographic index and peer nomination check list. The age range of the children were 13+ to 14+ years and they belonged to the same rural area (locality).

Schematic Model of the Sample Design

ENVIRONMENT	COMPETENCE		
		Competent	Incompetent
	Advantaged	Boys = 25 Girls = 25 N = 50 Gr. – I	Boys = 25 Girls = 25 N = 50 Gr. – II
	Disadvantaged	Boys = 25 Girls = 25 N = 50 Gr. – III	Boys = 25 Girls = 25 N = 50 Gr. – IV

Group - I : Advantaged Competent

Group - II: Advantaged Incompetent

Group - III: Disadvantaged Competent

Group - IV: Disadvantaged Incompetent

Test Instruments:

Teacher's rating scale – The teacher's rating scale for the measurement of behavior and personality of children was used in the current study. The teacher rating scale was originally developed by Schafer and Edgerton (School Assets Inventory; Carolina Institute for Research on Early Education of Handicapped, 1979) has been adapted to Indian version and used in many prior research studies was also used in this present study. The social assets scale measured five foundational variables through the rating 20 personality and creative skills of the subjects in a 5 point scale by the class teachers who comprehensively knew each of the subject.

The foundation variables measured by the teacher's rating scale were:

i) Verbal and Expressive Talents (VET)
ii) Relationship with Adults (RA)
iii) Status of Physical and Mental Health (PMH)
iv) Athletic Ability (AA) and
v) Strength of Nurturance and Grooming (SNG)

Results and Discussion:-

The focus of the present study was largely to examine the personality and creativity characteristic of invulnerable children in contrast to other children of the same age group. Invulnerability was indexed as high level of competency under various conditions of socio-economic and environmental adversities. In the sample, 50 subjects were studied in each group. In order to examine the significance of gender factor, equal number of boys and girls (25 each) were chosen in each of the four groups. The final analysis of result were done by collapsing the gender variable.

Five important aspects of personality and creativity were measured through teacher's rating. Those were : Verbal and Expressive Talents, Relationship with Adults, Physical and Mental Health, Athletic Ability, and Nurturance and Grooming. The means and standard deviations of all these measures in respect of all the eight groups are reported in Table 1. The 't' statistics showing the significance of difference between boys and girls in respect of the five measures of teachers' rating are presented in Table 2.

Gender Differences:

Out of 20 comparative means, boys were higher in 13 means, girls in two means, and in the rest five of the means, boys and girls were nearly the same. Such results pointed to the fact that in terms of teachers' rating boys in all the four groups were better than girls in four out of the five measures. In the measure of physical and mental health girls were better than boys. The means were then compared by 't' test. Thirteen out of the 20 't' values were significant in favor of boys, 2 't' values were significant in favor of the girls, and 5. 't' values were not found to be significant. The results were clearly suggestive about the superiority of boys as opposite to girls in four of the five measures and superiority of girls in the measure of physical and mental health.

In the advantaged competent group, boys were significantly superior to girls in verbal and expressive talents, relationship with adults, athletic ability and in nurturance and grooming. In the ability of physical and mental health, no significant difference was observed between boys and girls. In the disadvantaged competent group (invulnerable group), boys were significantly better than girls in verbal and expressive talents, relationship with adults, athletic ability and in nurturance and grooming, while girls were better than boys in the ability of physical and mental health. In the advantaged incompetent group, boys were better than girls in relationship with adults and athletic ability, and in the disadvantaged incompetent group they were better in relationship with adults, athletic ability, and in nurturing and grooming.

In general, the findings with respect to gender differences were not consistent across the four groups. However, it could be interpreted in the light of the findings by Case and Castro (1981) that during puberty, the overall physical and mental health of girls was better than boys due to their early physical and social maturity. Further, it was observed that the advantaged groups had better physical and mental health than the disadvantaged groups suggesting for the fact that invulnerability results from a stressful physical and mental health. To cite Lazarus and Folkman (1984) the physical and mental health of invulnerable children even came to a halt for some time prior to their bounce back and achieving invulnerability.

The gender differences were significantly prominent with respect to the disadvantaged competent or invulnerable groups which were not in consonance with many of the prior findings that gender differences were gradually wiped out from the development of invulnerability. The findings of the present study could be interpreted that the variables measured by the teachers' rating were all behaviors of expressive social skills. Girls in the backward rural communities constituting the sample in the present study might have been discouraged to display such skills, while boys were encouraged for those skills. It could be assumed that growing with invulnerability and facing more diverse encounters; girls would cover up to close these differences. The assumption is based on many prior studies (Kitano, 1998b; Dweeck, Goetz, starauss, 1980, and Plucker, 1998) which claimed that invulnerability among girls required a longer gestation period than boys.

It was further observed that nurturing and grooming factor was significantly related to socioeconomic advantages. But the invulnerable group despite being poor on this factor had consistently shown better performances on the other measures compared to both the advantaged groups. Such findings could be interpreted in terms of the power theory that some amount of stress from the environment was necessary to bring a state of ignition to invulnerability. Bonanno et al. (2007) observed that many people developed psychological invulnerability particularly after a disaster because the disaster provided the ignition force to their dormant invulnerability. Reivich, Karen, Shatte, and

Andrew (2002) observed that the behaviors of invulnerability of some orphan children came to a halt when they were adopted by higher socioeconomic families and were immediately provided with several advantages. They observed that the ignition factor of invulnerability had been destroyed in those children.

Table 1:-Means and Standard Deviations of the Eight Groups of Subjects for the Five Measures of Personality and Creativity through Teachers' Rating

Name of the Behavior		Groups							
		ACB	ACG	AIB	AIG	DCB	DCG	DIB	DIG
		AC		AI		DC		DI	
Verbal & Expressive Talents (20)	Mean	14.46	12.59	10.00	10.53	15.17	13.15	9.64	10.57
	SD	2.30	2.14	1.94	1.67	2.93	2.74	1.89	2.02
Relationship with Adults (20)	Mean	13.38	11.76	11.54	8.79	15.78	13.34	11.31	8.86
	SD	2.36	2.19	2.58	2.05	2.94	3.15	1.96	1.77
Physical & Mental Health (20)	Mean	15.56	15.84	13.23	14.51	12.96	13.94	11.45	11.22
	SD	1.85	1.93	1.64	2.08	2.83	2.63	2.45	2.21
Athletic Ability (20)	Mean	15.42	11.54	11.98	9.34	13.51	10.45	8.77	6.05
	SD	2.09	2.67	1.85	2.53	1.78	1.93	1.92	2.45
Nurturance & Grooming (20)	Mean	15.16	12.34	13.81	13.38	10.45	8.56	8.88	5.59
	SD	1.91	1.38	2.07	2.56	1.85	1.92	2.44	1.52

Table 2:- 't' Statistics Showing the Significance of Difference in Respect of the Five Measures of Teachers' Rating of Personality and Creativity between Boys and Girls

Behavior	Groups			
	Advantaged Competent	Advantaged Incompetent	Disadvantaged Competent	Disadvantaged Incompetent
Verbal & Expressive Talents	2.92**	1.02	2.49*	1.86
Relationship with Adults	2.45*	4.10**	2.81**	4.62**
Physical & Mental Health	0.52	2.37*	2.15*	0.34
Athletic Ability	5.63**	4.13**	5.77**	4.25**
Nurturance & Grooming	5.88**	0.64	3.50**	5.58**

* $p < .05$** $p < .01$

Group Differences:

To observe differences among the four groups of subjects with respect to the five measures of teachers' rating, the means and standard deviations were combined collapsing over the gender variable. Those means and standard deviations are reported in Table 3. Analyses of variances were performed to further elaborate the result and are reported in Table 4. Pair-wise comparisons of groups by the Newman-Keul test for the means of significant effects found in the ANOVA were also computed and are reported in Table 5.

In the measures of Verbal and Expressive Talents, and Relationship with Adults, the disadvantaged competent (invulnerable) group had the highest mean scores and second highest mean score in the Athletic Ability next to the advantaged competent group. In the measures of Nurturing and Grooming, the invulnerable group had very low mean score compared to both the advantaged groups and in Physical and mental Health, they were not very close to the advantaged group. Such findings about the invulnerable groups were consistent with the findings of many prior studies (Anthony and Cohler, 1987; Cicchetti and Rogosch, 1997; Fredrickson et al., 2003; and Tiet, 1998) which

suggested that invulnerability results from the capacity to deal efficiently with daily stress resulting from high socio-emotional positive and negative encounters. Poor nurturing and grooming environment, and lack of a good physical and mental health were generating conditions of invulnerability.

Table 3:-Means and Standard Deviations of the Four Groups of Subjects Collapsing the Gender Variable for Five Measures of Teachers' Rating of Personality and Creativity

Behavior		Groups			
		Advantaged Competent	Advantaged Incompetent	Disadvantaged Competent	Disadvantaged Incompetent
Verbal & Expressive Talents	Mean	13.53	10.27	14.16	10.11
	SD	2.49	1.94	2.78	2.08
Relationship with Adults	Mean	12.57	10.17	14.56	10.09
	SD	2.42	2.90	3.01	2.59
Physical & Mental Health	Mean	15.70	13.87	13.45	11.34
	SD	1.95	2.13	2.44	2.16
Athletic Ability	Mean	13.48	10.66	11.98	7.41
	SD	3.51	2.80	2.90	2.84
Nurturance & Grooming	Mean	13.75	13.60	9.46	7.24
	SD	2.70	12.17	2.36	3.06

In order to discuss on the further details of results, the means for all the five measures were treated for ANOVA. The results of ANOVA were clearly important because for all the five measures, 'F' values relating to the effects of both competency and advantage were significant. The interaction effects of advantage and competency were also significant for all the five measures. However, it was important to note that the advantage factor contributed relatively much less variances than the competence factor only in two of the measures namely Verbal and Expressive Talents, and Relationship with Adults. The 'F' values for the advantage versus competence factor were 4.26 / 16.89, and 4.30 / 19.05 respectively for Verbal and Expressive Talents and Relationship with Adults.

With respect to the measures of Physical and Mental Health, and Athletic Ability, variances contributed by the advantage and competency factors were nearly close although competency factor had contributed for greater variances in both. The reported 'F' values were respectively 11.98 / 16.18 and 13.05 / 17.64. On the other hand, with respect to Nurturance and Grooming, the variances contributed by advantage factor was nearly twice that of the competency factor having the reported 'F' values as 34.19 / 17,84, Significant interaction effects were also found having 'F' of 6.18 for Verbal and Expressive Talents, 4.47 for Relationship with Adults, 5.60 for Physical and Mental Health, 8.65 for Athletic Ability and 8.60 for Nurturance and Grooming.

Table 4:- Summary of Analysis of Variance Showing the Influence of Advantage (A), and Competency (B) on the Personality and Creativity Measures by Teachers' Rating

Sources	SS	df	Ms	F
Verbal & Expressive Talents				
Advantage (A)	64.78	1	64.78	4.26*
Competency (B)	256.54	1	256.54	16.89**
AXB	93.81	1	93.81	6.18*
Within	2976.65	196	15.19	-
Relationship with Adults				
Advantage (A)	78.23	1	78.23	4.30*
Competency (B)	346.46	1	346.46	19.05**
AXB	81.33	1	81.33	4.47*
Within	3565.78	196	18.19	-

Physical & Mental Health				
Advantage (A)	234.22	1	234.22	11.98**
Competency (B)	316.28	1	316.28	16.18**
AXB	109.56	1	109.56	5.60*
Within	3832.42	196	19.55	-
Athletic Ability				
Advantage (A)	154.78	1	154.78	13.05**
Competency (B)	209.23	1	209.23	17.64**
AXB	102.53	1	102.53	8.65**
Within	2324.18	196	11.86	-
Nurturance & Grooming				
Advantage (A)	353.88	1	353.88	34.19**
Competency (B)	184.67	1	184.67	17.84**
AXB	88.98	1	88.98	8.60**
Within	2029.56	196	10.35	-

These findings clearly pointed out that advantage factor did not fully contribute to the development of competency in verbal and expressive talents, and in making Healthy relationships with adults. Other factors, some of which could be assumed as factors of invulnerability, were also there to enhance the competence in these two skills. In the measures of physical and mental health, and athletic ability, advantage factor greatly contributed to competency but some other factors could be there which also contributed to these two skills and could be invulnerable factors. With respect to nurturance and grooming, the results could be interpreted that over nurturance was detrimental to the development of invulnerability.

The results were also important with respect to the interaction effects. All the five interaction effects were significant which could be explained that up to certain point, interaction of these two factors were necessary for the development invulnerable skills. Beyond these limits, other factors possibly worked on the development of invulnerability. However, the variances contributed by the interaction factor were also low suggesting for the assumption that there were still other important factors of invulnerability. In order to bring further clarity in the result, multiple comparisons by the Newman-Keul's test were performed.

Multiple comparisons showed that the disadvantaged competent or the invulnerable group (III) had highest mean scores in 2 of the five measures and second highest mean score in the Athletic Ability. On the other hand advantaged competent group had highest mean score in three of the measures namely Physical & Mental Health, Athletic Ability, and Nurturance and Grooming. Out of 15 pair wise comparisons of means with the invulnerable group, 09 were significant in its favor. Such results indicated that invulnerability was related to some factors beyond only the socio-demographic advantage. Twelve of the 15 paired comparisons of means were in favor of the advantaged competent group (I), Only 4 of the 15 paired comparisons were in favor of the advantaged incompetent (II) and no pair comparison of means was significant in favor of the disadvantaged incompetent (IV). The results very clearly suggested that socioeconomic advantage was a strong factor for the development of certain skills but invulnerability develops beyond those socioeconomic advantages.

Table 5:-Pair-Wise Group Comparisons by the Newman-Keul' Test for the Means of Significant Effects found in the ANOVA for the Teachers' Rating Measures

Verbal & Expressive Talents		I (AC)	II (AI)	III (DC)	IV (DI)
Means		13.53	10.27	14.16	10.11
Means in Order		IV	II	I	III
		10.11	10.27	13.53	14.16
IV	10.11		NS	**	**
II	10.27			**	**
I	13.53				NS
III	14.16				
Relationship with Adults		I (AC)	II (AI)	III (DC)	IV(DI)

Means		12.57	10.17	14.56	10.09
Means in Order		IV	II	I	III
		10.09	10.17	12.57	14.56
IV	10.09		NS	**	**
II	10.17			**	**
I	12.57				**
III	14.56				
Physical & Mental Health		I (AC)	II (AI)	III (DC)	IV (DI)
Mean		15.70	13.87	13.45	11.34
Means in Order		IV	III	II	I
		11.34	13.45	13.87	15.70
IV	11.34		**	**	**
III	13.45			NS	**
II	13.87				**
I	15.70				
Athletic Ability		I (AC)	II (AI)	III (DC)	IV (DI)
Mean		13.48	10.66	11.98	7.41
Means in Order		IV	n	III	I
		7.41	10.66	11.98	13.48
IV	7.41		**	**	**
II	10.66			*	**
III	11.98				**
I	13.48				
Nurturance & Grooming		I (AC)	II (AI)	III (DC)	IV (DI)
Mean		13.75	13.60	9.46	7.24
Means in Order		IV	III	II	I
		7.24	9.46	13.60	13.75
IV	7.24		**	**	**
III	9.46			**	**
II	13,60				NS
I	13.75				

It is now relevant to examine the theories and developmental models of invulnerability in the context of the findings of the present study. The Power theory, the Bounce Back theory (Henderson, 1996), the Bronfenbrenner's model (1979), and the Belsky's Process model (1984), Nanda's Invulnerability Concept (1996) all of them point to the fact that invulnerability is a state of bounce back under conditions of severe environmental threat, is a power generation to fight back the deficiency, and is a developmental initiative to overcome limitations. Those can happen only when the environment is sufficiently challenging. The performance of the invulnerable group in the present study supported the above theories and models in a significant way. Hence the above results of the present study not only in many ways proved the point of the theories and models, but also proved that our disadvantaged competent sample was truly invulnerable.

Conclusion:-

The present study was conducted to examine the personality and creativity style/characteristics of invulnerable children belonging to homogenous socio-demographic environment in a specific geographical boundary area (rural). The sample included 200 children, 50 in each of the four groups having, 25 boys and 25 girls in each group from a large population 2200 children. The four comparative samples (groups) were Advantaged Competent (AC), Advantaged Incompetent (AI), Disadvantaged Competent (DC), and Disadvantaged Incompetent (DI). The disadvantaged competent group who hailed from adverse life conditions and environment but were judged by teachers and peers as competent in different academic socio-emotional and life enriching skills, constituted the invulnerable group.

With regard to the five measures of teacher's rating, the gender differences were relatively more prominent. In three of the measures namely relationship with adults, athletic ability and nurturance and grooming boys were distinctly better than girls across all the groups. In the other two measures, no explicit trend of difference was observed among boys and girls. The advantaged group showed more of gender differences than the disadvantaged groups. In the invulnerable group, gender differences in favour of boys were observed in verbal and expressive talents, relationship with adults, athletic ability and nurturance and grooming.

In respect of the five measures of teacher's rating, invulnerable group has outperformed the advantaged competent group in measures of verbal and expressive talents and in relationship with adults and surpassed the advantaged incompetent group in athletic ability.

Compared to the disadvantaged incompetent group, the invulnerable group had much better performance in all the measures of teacher's rating. The findings suggested that both advantage and competency factor contributed to development of several personality and creative skills, may be due to interaction of these two factors. Further, in comparison to advantage factor, competency factor contributed to larger variance with respect to most of measures meaning thereby that competency is not largely regulated by the advantaged (may be environmental, ecological) factor only. Rather, there were several other important factors contributing to the development of competency. The major factor is invulnerability. The findings supports to the earlier results of Nanda and Dash (1996) who argued that competence as a part of vulnerability and invulnerability (resilience) develops and is best observed in an individual's everyday life situation. "Invulnerability as the process involving development of the capacity to confront, withstand overcome and benefit from deleterious life situations such as deprivation, disadvantage, stress, frustrations, conflicts and crisis. The adversities which the disadvantaged children face continuously during their life span, contribute positively towards developing certain competencies and coping skills and make such children invulnerable / resilient / invincible (Nanda and Dash, 1996, Biswal, 2008, Choudhury, 1991, Hariharan, 1991, Panda, 1998). Nanda (1994) has rightly observed that the sense of protection against calm reaction of painful stimuli and self-confidence seemed to be the hull mark of invulnerable children. Such children are oriented towards future, living ahead with hope. They are **"Lotus in the Mud"**.

References:-

1. Acharya, S.B. (1995) *Personality, Motivational and Cognitive Competence of Invulnerable Children* Unpublished Loctoral Dissertation, Utkal University, India.
2. Anthony, E.J. and Cohler, B.J. (1987) Eds. *The Invulnerable child,* New York : Guilford Press.
3. Anthony, E.J. (1987) Risk, Vulnerability, and Resilience : An Overview in E.J. Anthony & B.J. Cohler (Eds) *The Invulnerable Child,* Guilford Press, NY, London, PP - 1-47.
4. Anthony, E.J. (1984) The St. Lovis Risk Project in N.F. Watt, E.J. Anthony, C.L. Wynne & J. Roth (Eds.) *Children at Risk of Schizophrenia : A Longitudinal Perspective,* Cambridge, University Press, London.
5. Anthony, P.A. (1991) *Children of Alcoholics; Their Personal, Social and Educational Problems; Stress and Coping Style,* Unpublished Doctoral Dissertation, Utkal University, India.
6. Bandura, A.C. (1997) *Self-efficacy*, New York, Freeman.
7. Biswal, A.K. (2008) *Personality and Creativity Style of Invulnerable Children.* Unpublished doctoral dissertation, Utkal University, India.
8. Block, J.H. and Block, J. (1984) A Longitudinal Study of Personality and Cognitive Development, in S.A. Mednic, M. Harway & K.M. Finallo (Eds.) *Hand Book of Longitudinal Research*, New York, Praigor.
9. Bonanno, G.A.; Galea, S. Bucciareli, A. and Vlahov. D. (2007) "What predicts psychological invulnerability after disaster ? The role of demographics, resources and life stress." *Journal of consulting and clinical psychology,* 75(5), 671-682.
10. Bowlby, J. (1969) *Attachment and Loss,* Vol. 1, New York Basic Books.
11. Case, R.T. and Castro, P.S. (1981) Stress and coping among Mexican American school children. *Hispanic Journal of Behavioural Sciences,* 1, 1-73.
12. Cicchetti. D. and Rogosch, F.A. (1997) The role of self organization in the promotion of invulnerability in mal treated children. *Development and Psychopathology,* 9(4), 799-817.
13. Dash, A.S. and Hariharan, M. (1988) Identification and development of talents in disadvantaged children, in M.K. Raina (Ed.) *Identification and Development of Talent,* NCERT, New Delhi.
14. Dweeck, C.S.; Goetz, T.E.; and Starauss, S.N.L. (1980) Sex differences in learned helplessness. *Journal of personality and Social Psychology,* 38(3), 441-452.

15. Fredrickson, B.L.; Tugade, M.M.C.E. and Larkin, G.R. (2003) A perspective study of invulnerability and emotion following the terrorist attack on the United States on 11th, 2002. *Journal of Personality and Social Psychology,* 84(2), 365-376.
16. Freud, S. (1922) *Beyond the Pleasure Principle.* Standard Edition, London : Hogarth Press.
17. Garmezy, N and Rutter, M. (1983) *Stress, Coping and Development in Children.* New York, MKchnow Hill.
18. Garmezy, N. (1981) Children Under Stress : Perspectives on Antecedents and Correlates of Vulnerability and Resistance to Psychopathology, in A.I. Fabin, J. Aronoff, A.N. Barcly, & R.A. Zucker (Eds.) *Further Exploration in Personality***,** New York : Wiley, 196-269
19. Garmezy, N. (1970) Vulnerable Children : Implications derived from Studies of an internalizing extenalizing symptoms – dimensions, in J. Rubin and A. M. Freedman (Eds.) *The Psycho Pathology of Adolescence,* Grune & Staratton.
20. Hariharan, M. (1991) *Invulnerable Children : Some studies on Disadvantage Children's Competence and Coping Styles.* Unpublished Doctoral Dissertation, Utkal University, India.
21. Henderson, N. and Milstein, M.M. (1996) *Resiliency in Schools : Making it happen for Students and Educators.* Thousands Oaks, C.A., Corwin Press.
22. Kagan, R. (1982) *The evolving self : Problem and Process in human development,* Cambridge, M.A. Harvard University Press.
23. Kitano, M. K. (1998b) Gifted African American Women. *Journal for the Education of the Gifted,* 21(2) 131-159.
24. Lazarus, R.S. and Folkman, S (1984) *Stress, appraisal and coping,* New York: Springer.
25. Nanda G.K. (1994) From Disadvantage through Competence and Coping Towards Invulnerability : *Effect of Medium and Type of School, Sex, Grade and Popralarity on Children's Social – Motivational Functioning,* Unpublished D. Litt. Dissertation, Utkal University, India.
26. Nanda, G.K. (2000) *Nurturing invulnerability in disadvantaged children.* Paper presented at U.G.C. sponsored National Seminar (24 – 25 December) at P.N. College, Khurda, Odisha, India.
27. Nanda, G.K. and Dash, A.S. (1996) *Disadvantage, Schooling, Competence and Invulnerability* Panchajanya, Bhubaneswar, India.
28. Ogbu, J.U. (1991) Minority Coping Responses and School Experiences. *Journal of Psychohistory* 18(4), 433-456
29. Panda, P.K. (1995) *Academic, Cognitive, Personality and Motivational Co-relates of Competence and Invulnerability* Unpublished, Doctoral Dissertation, Utkal University, India.
30. Reivich, Karen, Shatte & Andrew (2002) *The Invulnerability Factors : 7 keys to finding your Inner strength and over comings life's hurdles.* Broadway.
31. Rutter, M. (1985) Resilience in the face of adversity : Protective factors and resistance to Psychiatric disorder. *British Journal of Psychiatry,* 147, 595 – 6111.
32. Rutter, M. (1990) Psychological Resilience and Protective Mechanisms, in J. Roff, A.S. Masten, D. Cicchetti, K.H. Neuchterlien & S. Weintraubs (Eds.) *Risk and Protective Factors in the Development of Psycho Pathology,* New York : Cambridge University Press, 181-214
33. Ruttern, M. (1978) Early Sources of Security and Competence, in J. Bruner & A. Garton (Eds.) *Human Growth and Development,* Oxford. Clarendon Press, 33-61.
34. Scaefer, E.S. and Edgerton, M. (1979) *School Assets Inventory* : Corolina Institute for Research on Early Education of Handicapped University of North Corolina, Chaple Hill, N.C.
35. Sharma, P. Saraswathi, T.S. and Gir, S. (1980) Development of Social Competence; School's Obligation to Children and adolescents, *Quest in Education,* 17, 217-227
36. Sharma, P. Saraswathi, T.S. and Gir, S. (1981) Role of Parents and Teachings in Promoting Social Competence in Children, *Child Psychiatry* Quarterly, 14, 134 – 137.
37. Tiet, Q.Q.; Bird, H.R.; Davies, M.; Hoven, C.; Cohen, P.; Jensen, P.S. and Goodman, S. (1998) Adverse life events and invulnerability. *Journal of the American Academy of Child and Adolescent Psychiatry,* 37(11), 1191-1200.
38. Tripathy, L.B. and Mishra, G. (1975) Cognitive abilities as a function of prolonged deprivation. *Psychological Studies* 20 (2), 99 – 119.
39. Tripathy, L.B. and Mishra, G. (1975) Cognitive activities as a function of prolonged deprivation. Psychological Studies. 20 (13), 54 – 61.
40. Werner, E.E. (1985) Stress and Protective Factors in Children's lives in A.R. Nicol (Eds.) *Longitudinal Studies in Child Psychology and Psychiatry* Chichester, England Wiley.
41. Werner, E.E. and Smith, R.S. (1977) *Kauai's Children Care of age***,** Honolulu, University of Hawai Press.
42. Werner, E.E. and Smith, R.S. (1982) *Vulnerable but Invincible,* New York : Mchna Hill Book Company.
43. West, D.J. (1982) *Delinquency : Its roots, Careers and Prospects,* London : Hemnmann Educational.
44. Wilson, H. (1974) Parenting in Poverty, *British Journal of Social Work,* 4, 1–254.