

A Comparative Study of Pattern of Stress and Intelligence among Children Living with Family and in Orphanage

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A child's upbringing and importance of family as a social institution in shaping the personality of an individual has been highlighted in many studies. Children who lose their parents in an early age are vulnerable to stressful situations. However adaptive factors such as resilience and intelligence impact a child's mental health positively. This study involves 60 children in the age group of 8-13 years tried to explore the pattern of stress and its effect on intelligence among children living with family and in orphanage as well as see the effect of gender on experiences of stress and intelligence. Draw a Person Test and Picture Frustration Study (Children's Form) were administered on the children. Findings revealed that with regard to P-F study, children in orphanages tend to direct their aggression towards the environment while those in family try to evade frustration while males tend to direct their aggression on to themselves. All respondents have similar pattern of experience on drawing of man and woman. However, male and female significantly differ on drawing of self and total. An interaction effect of gender and institution was visible; the overall findings of DAPT revealed that females in orphanage have the high intelligence while males depicted low scores on intelligence. Pattern of correlation shows that while N-P domain of P-F study is significantly and negatively correlated with total DAPT score, the M domain is positively correlated with it.

Keywords: Need persistence, Ego Defence, Obstacle-dominance, Stress, Intelligence.

Childhood is a very important phase of development in an individual's life. In order to have a better understanding of the various developmental milestones that take shape during this period, childhood has been classified into three sub stages on the basis of the age range, namely, early, middle and late childhood. Various components of the child's immediate as well as distant environment tend to influence his/ her overall development. Urie Bronfenbrenner's (1976, 1994) ecological model has aptly described these factors. The model divides a child's environment into five levels: the microsystem consisting of an individual's immediate environment such as family, friends; mesosystem consisting of the interrelationships between the various components of the microsystem; exosystem comprising of the linkages and processes taking place between two or more settings which does not contain the developing person but in which events occur that indirectly influence processes within the immediate setting in which the

developing person lives; macrosystem consisting of the overarching patterns of one's culture or subculture in terms of beliefs, values etc; and the chronosystem which includes the transitions over the life course. Environmental influences the process of self-development and guides human behaviour (Lewin, 1951).

The growth of a child through 6 to 14 years of age is considered to be a very important phase in the development of the self as well as the overall development of the individual. Skills of self-awareness begin to take shape during this period. During these years children tend to start developing a basic level of empathy i.e they are able to take the perspective of others and understand their problems. They are also able to comprehend and understand that others may possess different knowledge than them and may have differing points of view which they willingly accept. They also develop an ability to reflect on themselves and their behaviours/ actions. Children may also

undergo varied levels of stress because of different factors. According to Lazarus, (1966) “stress” is a generic term for the whole area of problems that includes the stimuli producing stress reactions, the reactions themselves and the various intervening processes.

Children living with families/ parents:

Family has an imperative role in the development of a child. Various research studies across years done in a wide range of cultures and settings have constantly revealed the positive impact (eg: a heightened sense of positive self-esteem, positive emotional growth) which family care has on a child’s optimal growth and development (Bunkers et al., 2014). Familial relationships have a long lasting and significant influence on a child’s overall development. The beginning of the development of social skills in infancy is facilitated by the earliest bonds, relationships and interactions with family members. Also, the culture and the values promoted within a family setting shape the child’s cognitive development by influencing how they perceive themselves and the world around them. Not only parents but sibling relationships are also vitally important for a child’s healthy development (Dodge, 2007). Within the family, in addition to the role played by parents, a child’s relationship with his/ her siblings is also considered significant in influencing his/ her development as they provide a vital context for the healthy development of a child’s understanding of others’ worlds, emotions, thoughts, beliefs and intentions.

Nurturing family environments are associated with positive outcomes for a child’s development. This environment provides children with love and helps to inculcate in them a sense of belongingness. Within the family children tend to participate and learn about family and cultural traditions, develop a sense of shared history, and imbibe important social skills that help them to engage and interact as family and community members later in life.

Various influential studies have revealed that children raised in biological, foster and adoptive families tend to display better physical, intellectual and developmental outcomes as compared to the children who live in institutionalised

care. For instance, across several longitudinal studies conducted in orphanages in Britain, high quality food, shelter and medical attention were provided to children in care. The child-caregiver ratio was also an optimum one. It was revealed that despite the higher quality of care provided, children were found to exhibit identifiable negative effects on their social development. Hence, research has highlighted that the quality of material components of care such as food and infrastructure is not virtually as important as consistent and responsive child-caregiver interaction, especially during the early formative years.

The presence of parents also facilitates the development of resilience in children. Resilience is considered to be the ability to bounce back after facing an adversity. Research evidence suggests that warm, authoritative and responsive parenting is a crucial paradigm for developing resilience. Parents who engage in open, participative communication and problem centred coping, tend to manage their stress well and help their families do the same effectively. Also, parents can buffer children from some of the worst effects of adversity in the surrounding environment.

Children living in orphanages:

The word orphan has been defined by UNICEF, as a child who has lost one or both of his/ her parents is identified as an orphan. A child is further classified as a “single orphan” if he/ she has lost one parent, and the loss of both parents classifies a child as a “double orphan. Death of parents brings about a major change in the life of a vulnerable child (Thompson et al., 1998) The study highlighted that there are very few events in a child’s life which seem to be as traumatic as losing one or both parents. Traumatic events like these may lead to great changes in family situations and the directly affect the upbringing of children, their physical development, as well as the psychological wellbeing of a vulnerable child. The loss of parent influences adaptation to social change which in turn leads to vulnerability to stress for the child (Minde, 1988). Children who have been before age two made dramatic developmental gains across several cognitive and emotional

development measures compared to those who continued to live in institutional care and whose situation worsened considerably (Bunker et al., 2014). Orphan and vulnerable children display lower levels of psychological well being than comparison groups if the quality of care is compromised (Zhao et al., 2011). It is also found that often, orphan adolescents are seen to be as more vulnerable to various psychological, emotional and behavioural problems, e.g. social isolation, adjustment problems, delinquency, aggression, personality disorders, depression, stress etc. (Goodyer et. al, 1985; Larson & Ham, 1993; Liu et. al, 2000). Contrary to these findings it has also been reported that placement in an orphanage is not associated with stressful experience and relates to positive mental health depending on the child's self-efficacy, resilience and intelligence level (Koder, 2000; Zimmerman, 2005). Perceived social support is another factor which enhances the child's abilities to cope and thrive in difficult circumstances (Bandura, 1986; Werner, 1993). A stark shortcoming of institutional care highlighted across several studies tends to be that young children may not experience the continuity of care they may need to form a lasting attachment with an adult caregiver. A continuing, meaningful contact between a child and an individual care provider tends to become very difficult to maintain in a residential institution due to high ratio of children to staff and the nature of working in shifts.

A child's actual and perceived level of intelligence somewhere seems to be rooted in what one's society/ culture propagates as right and wrong and the importance which it places on being intelligent. The values of being self-sacrificing, dependable, generous, and helpful to others seem to hold greater emphasis within these cultures. So, children growing up in these societies tend to place a lot of value on familial and peer relationships. Thus, in collectivistic cultures the presence of families plays a significant role in the optimal development of an individual. In India, being a collectivist culture, one's family plays an enormous role in shaping an individual's sense of worth with regard to intelligence and overall sense of self and identity. For eg: When children get acceptance from their parents, they may develop a high self-

esteem; love and warmth shown by the parents may help children believe in themselves and develop a positive view of their own selves and also of their intellectual capacities. Also, children may experience stress as a result of various environmental factors which may influence their holistic development.

Therefore, through this study an attempt was made to understand as to how the development of intelligence takes place in children living in orphanages (i.e without a family) and those in a family environment in a primarily collectivist culture and how the environmental factors may influence it. Also, an attempt was made to understand the pattern of stress in these children and to comprehend if any differences exist as to where their frustration is directed.

Another endeavour addressed through this study was to comprehend if gender differences have any differential effect between the intelligence levels amongst individuals. The holistic development of a child differs based upon the context/ setting in which the child lives i.e differences between children living with their families and institutionalised children. This study tried to bring to fore those differences.

Method

Sample and design:

60 children in the age range of 8-13 years studying in classes 3-8 from Delhi-NCR participated in this study. They varied in terms of gender (29 males (48.3%), 31 females (51.7%)) and institution (50% from orphanage and 50% living in families). The mean age of the participants was 10.35 years.

The sampling was purposive in nature and it is a comparative study hence between groups design is used which comprised of various independent variables (pattern of stress, gender and type of institution) and a dependent variable (Intelligence).

Measures:

Picture Frustration Study technique: It was developed by Rosenzweig in 1944, as a result of experiments with repression and frustration carried out by him. The Rosenzweig P-F study is an example of structured projective technique,

primarily intended to measure reactions to frustrating situation (Pareek, U., 1959).It was adapted and standardized for use in India by UdaiPareekh. The reliability and validity of the Indian adaptation were determined. The scoring reliability was quite high, the percentage of agreement being 79 with increase to 98 after mutual discussions. Stability coefficients ranged from .51 to .78 and consistency values from 56 to 91.

The original adult form which was introduced in 1944 was later revised in 1948 and was then followed by the Children’s Form in the same year.

Draw A Person: Quantitative Scoring System: Given by Jack Naglieri , the test is intended for use as a nonverbal measure of ability as part of a larger group of tests or for screening purposes.DAP is a projective test, which allows the participant to respond to questions through drawings.

Procedure:

The data was collected from orphanage by group administration. The caretaker there introduced the researcher to the children and gave a brief description about the purpose of the study. For collection of the data from children living with families, the researcher went to different locations such as the neighbourhood and gave a brief description to the children about the study. Also, snowball sampling was made use of for collection of data from children in families. In all, 80 tests were given out but as a result of challenges faced in the field (for instance, incomplete forms by some children etc.), the data obtained and analysed was of 60 children.

After the data collection was over, the responses were scored and the scored data was coded and analysed using SPSS 20 (descriptive analysis, ANOVA, correlation).

Statistical analysis:

During the analysis of PFT, all the raw scores i.e. (GCR, OD, ED, NP, E, I and M) were converted to percentages. With the use of manual, these percentages were converted to standard scores corresponding to the ages of the participants. Further, these standard scores were treated as raw scores and further statistical

analysis (descriptive, correlation and analysis of variance) was done to compute the final result.

During the analysis of Draw a Person Test, theraw scores of all the three drawings i.e man, woman and self as well as the total raw score were converted to standard scores, entered in SPSS 20 and further statistical analysis (descriptive, correlation and analysis of variance) was done to compute the final result.

Results

The results can be seen below according to the objectives of the present study. Table 1 presents the mean and SD of the various domains of stress on Picture Frustration study and Draw a Person Test.

Table No. 1 Mean and SD of All the domain of Picture Frustration Test and DAPT

Variables		Mean	Std. Deviation
Picture Frustration Study (P-F Study)	GCR	33.2500	3.77604
	OD	65.1667	7.53335
	ED	34.0833	5.56104
	NP	59.8333	8.63412
	E	48.3333	9.72794
	I	54.4167	7.70712
Draw a person Test (DAPT)	M	53.9167	10.00388
	man	41.5000	7.57225
	woman	41.5667	7.72266
	self	41.1667	8.42145
	Total	124.2333	20.88497

Table 1 shows the mean for GCR to be (33.250>50%).The mean of O-D,(65.166>19%) implies that 19%of the total respondents feel blocked by their frustration. In case of E-D(34.0833>38%), 38%of the total respondents put the blame for problems either on themselves or others. The mean of N-P (59.833>42%) implies that 42% of the total respondents look for solutions to their problems.

With regard to E(48.333>49%), 49% of the total respondents direct their aggression towards the environment. The mean of I(54.4167>28%) implies that the direction of aggression of 28%of the total respondents is upon themselves. While

Table No. 2 main effect and interaction effect of gender and institution on different domains of PFT (N=60)

	Gender		F	Institution		F	F
	Male	Female		Orphanage	Family		
GCR (Group Conformity Rating)	33.79	32.76	1.11	33.05	33.50	0.20	0.51
OD (Obstacle Dominance)	64.98	65.32	0.02	64.97	65.33	0.03	0.02
ED (Ego Defense)	32.76	35.31	3.30	33.70	34.33	0.19	0.77
NP (Need Persistence)	60.23	59.55	0.93	60.29	59.50	1.23	1.79
E (Extrapunitiveness)	50.34	46.50	2.89	52.67	44.16	14.16***	0.44
I (Intropunitiveness)	56.32	52.62	3.63*	52.94	56	2.24	0.02
M (Impunitiveness)	50.15	57.36	10.97**	49.35	58.16	16.39***	1.03

***p<.001**p<.01, *p<.05

Table No. .3 Main effect and interaction effect of gender and institution on different domains of DAPT (N=60)

	Gender			Institution			F
	Male	Female	F	Orphanage	Family	F	
Man	39.66	43.08	3.30	40.72	42.03	0.48	4.46*
Woman	40.09	42.80	1.94	40.87	42.06	0.37	2.55
Self	39.08	42.93	3.97*	38.29	43.73	7.94**	7.95**
Total	118.85	128.86	3.97*	119.88	127.8	2.50	6.17*

***p<.001**p<.01, *p<.05

the mean of M(53.9167>32%) implies that 32% of the total respondents evade aggression in order to gloss over the frustration.

With respect to Draw A Person test, the total mean score (124.233) corresponds to superior category of intelligence while independently all the three scores of man(41.5000), woman(41.5667) and self (41.1667) domains correspond to deficient category of intelligence.

Table 2 shows A 2(gender: male and female) X 2(institution: orphanage and family) analysis of variance was performed to explore the pattern of stress and its' effect on self among children living with family and those in orphanages and also to explore the effect of gender on experiences of stress using Picture Frustration Test. Table shows there is main effect of gender on intropunitiveness and impunitiveness. Mean shows that males are high on intropunitiveness and female high on impunitiveness.

In reference to institution main effect shows that orphanage children are more

Extrapunitiveness and family children are more Impunitiveness. There is no Interaction effect on gender and Institution.

Table 3 shows A 2(gender: male and female) X 2(institution: orphanage and family) analysis of variance was performed to explore the pattern of Intelligence among children living with family and those in orphanages and also to explore the effect of gender on experiences of intelligence with the use of Draw a Person Test. Table shows that there is main effect of gender as well as type of institution on the dimension of intelligence in different context, F values shows that there is no significant difference in reference to man and women between male and female however female significantly difference with male in reference to self and total. In reference to institution there is no significant difference between orphanage and family living children on man, woman and total. They only differ on self, family living children are more intelligent rather than orphanage children. While looking into the interaction effect, a significant interaction

Table No.4 Correlation of Dimensions of Picture Frustration Test with dimensions DAPT (N=60)

Variables	Draw A Person Test			
	man	woman	self	total
GCR (Group Conformity Rating)	.036	.057	.058	.096
OD (Obstacle Dominance)	.031	.136	.148	.131
ED (Ego Defense)	-.050	-.102	-.088	.094
NP (Need Persistence)	-.161	-.189	-.234	-.346**
E (Extrapunitiveness)	-.081	-.059	-.139	-.252
I (Intropunitiveness)	.024	.075	.132	.204
M (Impunitiveness)	.155	.080	.187	.283*

***p<.001**p<.01, *p<.05

effect of gender X institution on man and self and overall (total) dimensions was found. The dimension/drawing of woman did not reveal any significant interaction effect.

Table 4 shows correlation between the various domains of Picture Frustration Test and Draw a Person Test. The pattern of correlation shows that N-Pi.e need- persistence domain of PFT is significantly and negatively correlated with total DAPT score. However, Mi.e impunitiveness domain of PFT is significantly and positively correlated with total DAPT score. Whereas, there is no significant relationship between man, woman and self with all the domains of PFT.

Discussion

The present study primarily aimed at exploring the pattern of stress and its relation with intelligence among children living with family and in orphanage. Furthermore it also tried to explore the effect of gender on experiences of stress and intelligence.

To get an understanding of the relationship between the various domains of PFT and Draw A person test, correlation was made use of. This revealed that need persistence(N-P) is significantly and negatively correlated with total DAPT score, whereas, M is significantly and positively correlated with it. There is no significant relationship between man, woman and self with all the domains of PFT. This implies that as need persistence (in which the solution of the frustrating problem is emphasised) keeps increasing, the overall intelligence will decrease whereas if M keeps increasing, it will also show an increase. This means with increasing

intelligence aggression is evaded in order to gloss over the frustration, respondent absolution from blame by excusing someone else or by excusing oneself which help to consider together.

Findings revealed that with regard to P-F study, 19% of the total respondents feel blocked by their frustration, 38% put the blame for their problems upon themselves or others while 42% respondents look for solutions to their problems. The mean of E(48.33>49%) implies that 49% of the total respondents direct their aggression towards the environment, while that of I(54.41>28%) implies that the direction of aggression of 28% of the total respondents is upon themselves. The mean of M(53.91>32%) implies that 32% of the total respondents evade aggression in order to gloss over the frustration.

With respect to Draw A Person test, the total mean score (124.23) corresponds to superior category of intelligence while independently all the three scores of man (41.50), woman(41.56) and self (41.16) domains correspond to deficient category of intelligence.

Furthermore findings revealed that males and females have similar O-D (obstacle-dominance), E-D(ego defence) and NP(need persistence) patterns of reaction with regard to the Picture frustration study. The same is also true for the type of institution (i.e orphanage or family). This implies that both respondents(male as well as female living in orphanage and family) have similar kind of experiences i.e they experience being blocked by the frustration, and may go on attack other or himself or may go to some solution of the problem.

The domain of direction of aggression, however, showed significant differences with respect to type of institution but not in terms of gender. Orphanage children score higher on extrapunitiveness dimension as compared to the children living in family implying that children living in orphanages tend to turn their aggression on the environment. The reason for this could be that they might hold a negative attitude towards the outside environment. For instance, As found out by Tsumarieva (2015) that children of orphanage are dominated by reactions that include hostility, accusations, threats, and reproaches towards people around them (extra-punitive reaction, first of all due to reactions typical to self-protection). These responses indicate that children condemn external causes of frustration, and their emotions are directed at living or non-living objects. Pilapil (2015) also mentioned that at some points, children in the orphanage tend to have negative feelings toward their environment. They viewed the people around them as having more negative attitudes. They tended to be guarded so that, they "didn't give their full trust to others.

On the other hand, in case of intropunitiveness dimension, gender differences were observed and no such differences were present with regard to the type of institution. Male score higher on intropunitiveness dimension as compared to females. i.e males more often turn the aggression on to themselves. This can be seen in the light of the psychoanalytic theory. Freud believed that all humans have a death instinct and aggression is a drive to satisfy that instinct. He described that the aggression could be turned upon oneself in order to satisfy the ego.

In terms of impunitiveness dimension significant differences were observed in terms of both gender as well as type of institution. Females and children living in family score higher than males and orphanage children respectively on impunitiveness dimension implying that females more often than males try to avoid frustration in over to gloss over it and be impersonal to it while children in families try to evade aggression more often than those living in orphanages. The reason for the stark gender differences could be the way females are socialised to behave even

from a young age i.e to be calm, non-aggressive etc. Richardson and Green (1999), for instance, argued that women would be more socially inhibited than men in showing anger, perhaps, because the likelihood of social sanctions for such behaviour might be higher for females. On the contrary, Gur and Gur (2002), on the basis of evidence that males have greater brain size than females (even after adjusting for body size) prefer to argue that women's brains are better at handling anger because the part of the brain that modulates aggression is smaller in men than it is in women. Both sexes would have about the same ability to produce emotions, but when it comes to keeping those emotions in check, men have been short-changed. Tsumarieva (2015) in their study reported that children living in families showed that only 25% showed high levels of frustration, 25 % showed average, and 50% - showed low. They are more adequately able to assess the difficulties without adjusting themselves to failure. Also, it was seen that children living in families were characterized by a variety of reactions, most of which were constructive with children in a difficult situation trying to look for their own solution that would be able to satisfy both sides. Often children showed empathic responses that are not specific to children who are brought up in an orphanage.

In terms of DAPT scores, it was seen that there is no main effect on gender ($F, 3.30$); ($F, 1.94$) and institution ($F, 0.48$) (0.37) on the drawing of man as well as the drawing of woman. However, it was seen that gender and institution have an interaction effect on the drawing of man ($F 4.46^*$) while no such effect was found in terms of the drawing of woman ($F, 2.55$).

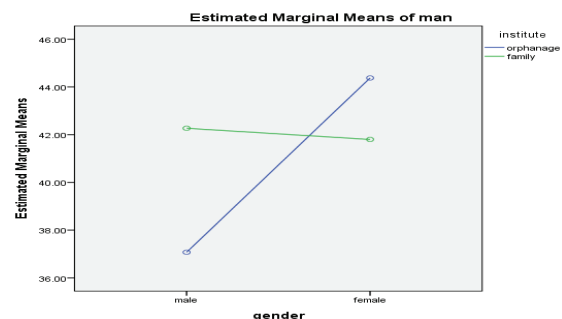


Fig. 1 Interaction effect gender and institution on drawing for man

Figure 1, shows that while the orphanage female have higher score on drawing of man, orphanage male score lower on it. Whereas in family nearly similar kind of score male and female having in drawing the person. Mean shows the declining tendency towards female to male in orphanage however in family vice-versa.

On drawing of self, there is main effect of gender ($F, 3.97^*$) and institution (7.97^{***}). Female children and those living in family score higher than males and orphanage children respectively. The fact that males score lower on their drawings of self has also been supported by earlier research. According to Hachover (1960), drawings by boys of themselves tend to shrink drastically in size and also tends to be often placed at the bottom and left of the page. The drawing done by boys are "singularly lacking in vigour of limbs, posture, or extension." Limbs are short, often weak, cut off and poorly integrated with the trunk. Drawings of girls in the primary grades are superior to those of boys (Koppitz, 1968; Harris, 1963; Goodenough, 1926). With regard to the gender differences in drawings, Sinha (1970) found that boys have a greater concern for proportion while girls tend to have a greater concern for details. Beside this some studies shows the contrary findings in terms of lack of gender differences i.e. Keogh (1972), in her study on preschool children, found absence of sex differences on the D-A-P. She attributed the results to the age of the children or to the unreliability of the instrument.

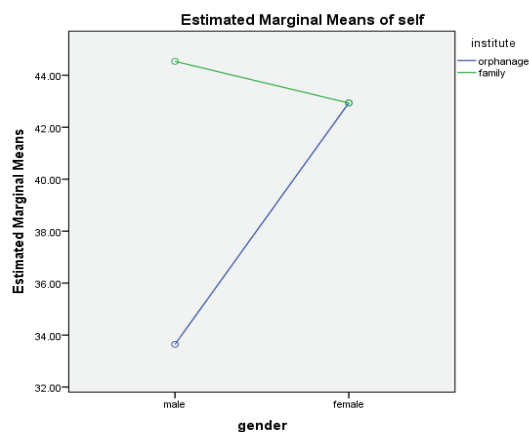


Fig. 2 Interaction effect gender and institution on drawing for self

Apart from this the interaction effect of gender and institution are also significant on self ($F, 7.95$).

Figure 2, shows that with regard to the drawing of self, male respondent from family have higher score, while male respondent from orphanage score lower. Females from family as well as orphanage have similar kind of score on drawing of self. Further pattern of means shows that there is declining tendency from male to female in family, however declining tendency towards female to male in orphanage.

In reference to overall score on DAPT main effect shows that there was a significant difference between male and female ($F, 3.97^*$) on the overall drawing score, it was seen that females score higher on the overall drawing score as compared to males. No such effects were observed in regard to the type of institution ($F, 2.50$). However, there is an interaction effect ($F, 6.17^*$) of gender and type of institution on the overall drawing score.

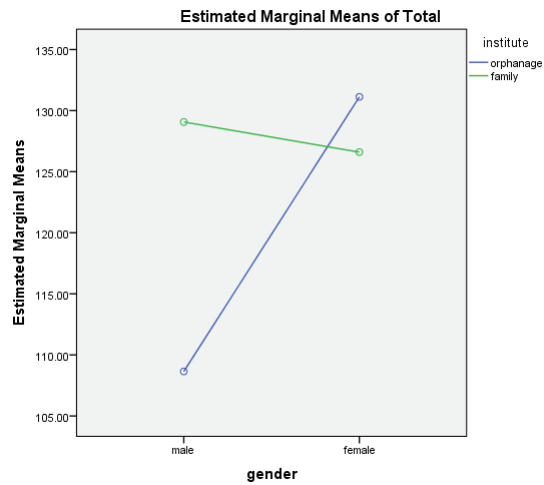


Fig. 3 Interaction effect gender and institution on drawing for total DAPT

Figure 3, shows that with regard to orphanage, female score higher and males score lower on total DAPT. In terms of family respondent male and female have nearly similar kind of score. Mean score shows that in orphanage there is declining tendency from female to male whereas in family vice versa. Orphanage females have highest level of intelligence. This may be attributed to resilience

in them. In spite of being in poverty conditions, these children believe that they can do well in life and overcome these conditions. For instance, as described by Rouse (1998) in the article 'Resilience from Poverty and Stress', these children may have an internal locus of control. An internal locus of control may be described as a belief that one can impact his or her own destiny. It is the belief that whatever happens to a person is under his or her own control. This can foster intelligence. Also, as mentioned in the article; resilient people have good reasoning ability. This implies that they are intelligent, but they do not necessarily have high IQs. These people have the ability to solve problems. They also tend to plan for significant events in their lives. Overall findings revealed that males in orphanage had the lowest intelligence while orphanage females had highest.

Few drawings by children in both types of institutions (i.e family and orphanage) were drawn in a disorganised manner. This may be reflective of the stress children may be experiencing, as pointed out by research. For instance, Britain (1970) found that stress had an effect on the family drawings of four and five year olds. The drawings made by children subjected to stress were described as being constricted, grossly distorted, disorganised, fragmented and poor in line quality in comparison to the drawings of controls. Thus, Britain concluded that dynamic defensive processes were reflected in drawings.

These findings reveal that it may be difficult to determine as to children belonging to which institution experience more stress.

It was noted that the ears were missing in many of the drawings irrespective of gender or type of institution. According to Di Leo, (1983) and Koppitz, (1968), the omission of nose and ears in children's drawings indicate feelings of powerlessness and difficulty in communicating with others. Some drawings of the children in orphanages had very tiny heads, Koppitz (1968) states that a very tiny head on a drawing points towards intense feelings of intellectual inadequacy.

Also, the length of the arms was greater in few of the drawings of children living in families as compared to those in orphanages.

Klepsch & Logie (1982) have highlighted that long or large arms imply that the child wants to control others and desires strength and power, although Koppitz (1968) states that large or long arms may indicate a desire to reach out to others. Small arms, according to Klepsch & Logie (1982) point towards a fear of power or of the child seeing him/herself as weak or ineffective.

Conclusion

As per the objectives of the study, it may be concluded that there are gender differences as well as differences in the type of institution in how children respond to frustrating situations and also how they conceptualise their drawings. With regard to the Picture Frustration study, it was found that males and females have similar O-D (obstacle-dominance), E-D (ego defence) and NP (need persistence) patterns of reaction. The same is also true for the type of institution (i.e. orphanage or family).

With regard to the type of institution, it was observed that children living in orphanage tend to turn their aggression on to the environment while the children living in families tend to evade aggression in order to gloss over the frustration. In case of gender differences it was seen that while males turn the aggression on to themselves, females try to evade aggression in order to gloss over the frustration.

In terms of DAPT, drawings by children in both types of institutions (i.e family and orphanage) were drawn in a disorganised manner. This may be reflective of the stress children may be experiencing. However, it is difficult to ascertain as to children belonging to which institution experience more stress.

The correlation between N-P domain of Picture Frustration Study is significantly and negatively correlated with total DAPT score. However, the M domain is significantly and positively correlated with it. Whereas, there is no significant relationship between man, woman and self with all the domains of P-F Study.

Limitations and Further Suggestions:

The present study was bound by few limitations. Since the sample size was small (N=60) and was confined to the Delhi-NCR region, the results might/ cannot be generalised.

Also, in this study, age was not taken as a variable to see its' effects on the various domains .as well as gender differences which might come within the type of institution were not observed. Therefore, further studies may be conducted to explore the effect of varying age groups on various domains of Picture Frustration Study and Draw a Person test. Also, gender differences within particular institution could be explored through further research

Conflict of interest: All the authors declare that they have no conflict of interest.

Ethical approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

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