

# COMPARISON OF FEAR IN CHILDREN WITH AND WITHOUT MENTAL RETARDATION: A STUDY FROM TURKEY

PINAR BAYHAN, ISMIHAN ARTAN, ARZU IPEK YUKSELEN

## ABSTRACT

*Fear, which is present right from the very early periods of human life is one of the most common forms of emotion. Intelligence is also suggested to be among the major factors that affect fear. This study was designed and conducted to examine the fears of trainable mentally retarded children and those without mental retardation. Eighty-eight trainable mentally retarded children aged 10-15 years and 122 children without mental retardation aged between 7-15 years were included in the study. The "Fear Survey for Children with and without Mental Retardation" developed by Ramirez and Kratochwill was used as the data collection tool. After statistical analysis, a significant relationship was found between mental retardation and the healthy states in terms of both the number of fear episodes and in its severity.*

About a century ago in 1897, Stanley Hall made the following remarks about fear: "There is no one who is not afraid. All humans fear, and indeed must fear. The problem from the pedagogical point is not how to completely remove fear, but how to give the appropriate response to it.

Indeed fear, is present from the early states of human life and for children, represents a normal part of life and development (Robinson III, et.al., 1991, 187). Fear, is one of the most common emotional states that can be defined as "a natural response to both visible and invisible dangers, or in other words, response to a situation that is not well understood by living things" (Yavuzer, 1992, 75-76).

Kagan (1986), conducted a longitudinal research study on children from birth to age 8 years. Kagan, pointed out that children may have a genetic predisposition to fear but also asserted that the effect of the environment could not be overlooked. In his study he found that some children were more prone to fear right from birth. Later, he observed these same children for 8 years. He pointed out that those children who feared much in the period after birth could become less afraid,

and those who feared little after birth could become more afraid later. With this study, Kagan once again focussed attention on the diad of "genetics" and "environment" (Robinson III, et. al. 1991,188).

Most of the theoretical models available today seem to depend on a single base. The comprehensive model supported by Smith et al., is more detailed and combines the available studies. According to this model, fear is a dynamic entity affected by individual, environmental, social, and various interpersonal variables. According to the comprehensive model, fear is a normal developmental response to real or sensed danger (Smith, et.al.,1990, 151).

*Major factors affecting fear in children are as follows:*

- \* Intelligence,
- \* Gender,
- \* Socio-economic status,
- \* Social relations,
- \* Physiological conditions,
- \* Individual (Yavuzer, 1992,100).

During the entire growth period of the children, it was observed that they had different fears at different times. Some of these fears are specific to the period in which the child is found. For example, a one-year-

old may have a fear of falling. For a child starting to walk, falling in a bad way may adversely affect his or her later attempts to walk. Children express their fears in different ways. While some may scream and cry, others may have nightmares and still others may try to stay away from objects that they have fear of (Gebeke, 1994, 1).

Robinson et al., considering opinions of other investigators prepared a table showing the distribution of fear in children by age as follows:

0-6 month-olds... Loss of support, high voice tones, sudden movements.

7-12 month-olds... Foreigners, high voice tones, suddenly appearing big objects.

1 year-olds..... Separation of parents, foreigners, injury, toilet.

2 year-olds..... Big animals, dark rooms, big objects or machines, high voice tones, sudden changes in the individual's environment

3 year-olds..... Dark rooms, masks, big animals, snakes, separation from parents.

4 year-olds..... Dark rooms, sounds heard at night,

big animals, snakes, separation from parents.

5 year-olds..... Wild animals, injuries, darkness, bad people, separation from parents.

6 year-olds..... Ghosts, beasts, witches/wizards, darkness, solitude, storms, lightning.

7 year-olds..... Darkness, beasts, storm, getting lost, child snatchers, solitude.

8 year-olds..... Darkness, people(child kidnappers, thieves, robbers), arms and guns, animals, solitude

9 year-olds..... Darkness, getting lost, nightmares, accidents or injuries, solitude.

10 year-olds..... Darkness, people, nightmares, punishment, foreigners.

11 year-olds..... Darkness, solitude, nightmares, being injured by someone, falling sick, exams, exam results

12 year-olds..... Darkness, punishment, solitude, being injured or kidnapped, exams, scores.

13 year-olds..... Guilt in general, being injured by someone, kidnapped, war in general and nuclear warfare, poor scores, exams, punishment.

14 years +..... Failure at school, personal relationships, war, exams, sex matters (pregnancy, AIDS...), solitude, family worries (Robinson III, et.al., 1991,189).

## METHOD

### Participants

Eighty-eight mentally retarded children aged 10-15 years and 122 children aged 7-15 years without mental retardation were included in the study. The age and gender distribution of the children with and without mental retardation are shown in Table I.

**Table I:** Age and gender distribution of the children with and without mental retardation

	Female		Male		Total	
	N	%	N	%	N	%
<b>With MR</b>						
10-15	19	59.4	31	55.4	50	56.8
13-15 year-olds	13	40.6	25	44.6	38	43.2
<b>Total</b>	<b>32</b>	<b>100.0</b>	<b>56</b>	<b>100.0</b>	<b>88</b>	<b>100.0</b>
<b>Without MR</b>						
7-15	25	39.7	19	32.2	44	36.1
10-12 year-olds	22	34.9	22	37.3	44	36.1
13-15 year-olds	16	25.4	18	30.5	34	27.8
<b>Total</b>	<b>63</b>	<b>100.0</b>	<b>59</b>	<b>100.0</b>	<b>122</b>	<b>100.0</b>

Children constituting the mentally retarded group in the study sample were children from schools for the trainable in the central district of Ankara. The IQ of the mentally retarded children was in the range of moderate degree mental retardation group. The American Psychiatric Association, DSM IV (1994), considers moderate degree retardation as IQ of 35-40 and 50-55 (Heward, 1996). The Children Without Mental Retardation group was made up of children resident in the Ankara district center and attending public primary schools who had no handicap whatsoever.

### Data Collection Tool

Fears of the children included in the study sample was assessed by the "Fear Survey for Children With and Without Mental Retardation" method developed and later revised by Ramirez and Kratochwill in 1988 and 1990 (number of fears= 0.84; total score= 0.86). This survey is a self-reported instrument that is administered individually and orally to each child. The questionnaire was in two parts. In the first part, different fear provoking objects and events and their explanations were listed from 1 to 58. Later, question numbers 59 through 60 were open ended. The children were asked about other fears not mentioned in the above

list and when present what they were. As in the first part, the second part of the questionnaire was a list of fear provoking different objects and events numbered from 1 to 25. Side by side, the fear provoking events and objects in this part also had explanations attached. The second part was formed from evaluation of the answers to the previously developed question numbers 59 and 60. The confidence study of the fears questionnaire in this investigation was found to be, Cronbach alpha 0.9712.

### Evaluation

At the evaluation every fear provoker was read out one after the other as for example, "Did..... frighten you?" If the child gives a "no" (not afraid) answer he got zero "0" point for the question and the next question was jumped to. If the child gave a "yes, it frightens" answer, he or she was then asked "...frighten you a little or much?" If the answer was "a little" (a little afraid) he/she got "1" point, and if "much" (very afraid) he/she got "2" points.

### Procedure

Both the children with and without mental retardation were asked questions individually in empty silent rooms provided by their school authorities. Before the start of the interviews each child was told to ask about the

fear being asked about in case it wasn't clear to him or her. When the question wasn't clear to the child the explanation beside the question was then given. For example: graveyards/places people are buried when they die. The same note was made before proceeding to question number 30. Answers were marked immediately.

### Data Analysis

In the analysis the t-test, was used as the significance test for the difference between two means. Where the variance was not homogenous as determined by the Levene test, the Mann-Whitney U Test was used. The significance level for the data in the study was taken as  $p < 0.05$ .

### FINDINGS

The most commonly observed 10 fears in the mentally retarded 10-15-year-old children group and those of the 7-15-year-old children group without mental retardation are as listed below (Table II).

Considering the general diversity of fear it was apparent that the diversity of fear amongst the MR girls and boys was higher than for boys and girls without MR.

In Table II results from the examination of the diversity of fear is shown. The most common fears observed among MR girls, was being hit at the buttocks (%59.4), girls without MR burning of the home (%96.8), whilst among boys with MR high altitude (%51.8), and among boys without MR thunder (%91.5) Examination of the fears among girls with and those without MR showed child kidnappers, getting lost, and being murdered to be among the 10 most common fears, though with different ratings. However, among boys with and without MR thunder, fire outbreak, child kidnappers and drowning were fears common to all. Examination of the most common fear provoking episodes in children with and without MR showed them to be concentrated on topics like physical dangers, animals, death, bad people, emotional derangement and physical injury (Table III).

In mentally retarded girls hitting the buttocks, shame, father shouting and to be beaten up were the fears observed that were not expressed by children from the other groups. It is noteworthy that they had fear of any attempts to punish them. Browne (1993) expressed the fact that mentally retarded children were abused physically and sexually. Parents are especially worried about the fact that mentally retarded girls are open to sexual abuse, and for that matter are seen to bring up their daughters under pressure. In this study, the observation that girls with mental retardation had fear of being punished, shows how widespread this problem is.

Table IV, shows the distribution (t test used for significance testing) of the number of fears and the severity of fear in relation to the mental status of the children in the study sample. Table V shows a comparison (Mann-Whitney U Test used for significance testing) between the mentally retarded children and those without mental retardation in terms of the number of fears and the severity of fears

Table II: Ten most common fears of children with and without mental retardation included in the study.

Without MR		With MR			
Female (7-15) n=63	Burning of the home	96.8	Female	To be whipped at the buttocks	59.4
	Child kidnappers	95.3	(10-15)	Getting lost	59.4
	Fire	93.7	n=32	What will happen in the future	53.2
	Lion or tiger	93.6		To be beaten	53.1
	Narcotics	90.4		Being made shy	53.1
	Unknown people who behave badly towards children	90.4		Father shouting	53.1
	Drowning	88.9		Foreigners	53.1
	Death or the Dead	87.3		Thunder	53.1
	Getting lost	87.3		Child kidnappers	50.0
	To be killed	85.7		To be killed	50.0
Without MR		With MR			
Male (7-15) n=59	Thunder	91.5	Male	High altitude	51.8
	Narcotics	88.2	(10-15)	Fire outbreak	50.0
	Being leapt onto suddenly	88.1	n=56	Horror films	50.0
	Fire outbreak	86.5		Thunder	50.0
	Child kidnappers	84.7		Getting lost	46.5
	Death or the Dead	83.0		Child kidnapper	44.7
	Snakes	79.7		Bees	44.6
	Getting into trouble	79.7		Immunization	44.6
	Drowning	78.0		Shark	42.9
	Lion or tiger	77.9		Drowning	42.9

**Table III:** Distribution of the fears reported to be the most severe 10 items by both the children with and without mental retardation in the study sample (intensity score).

10-15 Year-old Children With Mental Retardation	7-15 Year-old Children Without Mental Retardation
*Home Burning	*Home Burning
*Father Shouting	*Narcotics
*Fire outbreak	*To be Killed
*High Altitude	*Child Kidnappers
*Getting lost	*Getting drowned
*Horror films	*Fire Outbreak
*Weapons	*Lion or Tiger
*Dogs	*Death or the Dead
*Child Kidnappers	*Snakes
*Being Punished	*War

mentioned by the study sample. Examination of the relationships between the number of fears and the severity of fears and being mentally retarded or not, showed the variances to be non-homogeneous according to the Levene Test, and for this reason, the Mann-Whitney U Test was applied. From the results obtained in this study, a significant relationship was found between the number of fears and the conditions of being mentally retarded or not ( $p=0.0001$ ;  $p<0.05$ ). A significant relationship was also found between the severity of fear and the conditions of being mentally retarded or not ( $p=0.0001$ ;  $p<0.05$ )

Table VI shows the relationship between the number of fears and the severity of fear and the gender of the mentally retarded children using t-test. Here, the arithmetic mean of the number of fears in both girls and boys was observed to be closer to one another ( $x$  girls=30.5;  $x$  boys=26.2). In like manner, the arithmetic mean of the severity of fear for both boys and girls was observed to be similar. ( $x$  girls=47.3;  $x$  boys=44.1) (no significant difference using t-test). Table VII however, examines the relationship between the number of fears and the severity of fears among children with and without mental retardation according to t-test in the study sample. By this, the dif-

ference between the fears of boys and girls was found to be significant ( $p=0.008$ ,  $p<0.05$ ). In terms of the severity of fear, the difference observed between boys and girls was significant ( $p=0.023$ ,  $p<0.05$ ).

## DISCUSSION

Some investigators support the notion that mentally retarded children express their emotional reactions far later in life than normal children. Cicchetti and Sroufe (1976, 1978), conducted a longitudinal study on the development of laughter and smiling in babies with Down's Syndrome. They found that children with Down's Syndrome had a delayed laughing reaction but had the same series of reactions to stimulants as normal babies (Ganiban, et.al.,1993, 43). In a study on children with more than one handicap Gallagher, Jens and O'Donnell (1983), found a significant relationship between the mental age and smiling behaviour (Ganiban, et.al., 1993, 44). Cicchetti and Sroufe (1978), in their study on babies with Down's Syndrome used the Bayley and Uzgiris-Hunt scoring system. In this study, babies with Down's syndrome who showed fear and expressed their sorrow at earlier stages were found to have intelligence scores higher than the others

(Ganiban, et.al.,1993, 44). Bauer also mentioned the relationship between fears and mental development of children (Robinson III, et.al,1991, 191). However, some investigators defended the notion that mentally retarded children compared to those with normal development can have more fears. Children also think that success in life can raise their self esteem which in turn may also affect their perception of fear. According to investigators a child with high self-confidence thinks that he is able to control his environment and hence has little to fear. For example when such a child is left alone in the dark he/she thinks he can bring back light and therefore fears little. However, for the mentally retarded child as he/she grows to understand the handicap and gets to feel that his failure is linked to that handicap, then he/ she loses self confidence and gets worried about not being able to control his environment. This could then lead to an increase in his /her fears. According to Rotter and Robinson (1987), the child is able to develop appropriate strategies towards fear provoking events or objects depending on level of mental development, and this may lead to a decrease in his fears (RobinsonIII, et.al, 1991, 193). In a study on children with normal development and those in need of special education, Deverensky found the mentally retarded children to have more frequent and more severe fears than the normally developing children (Deverensky, 1979). In the same way, Zelfa also found that mentally retarded children show more frequent and severe fears than normally developing members of their agegroups (Zelfa, 1988, 2595).

In both groups, children with and without mental retardation, "burning of the home" is the most common fear at first glance (Table III). Apart from this though, with differences in

**Table IV:** The distribution of children with and without mental retardation in sample according to the t-test of the relation between number of fears and intensity of fears.

	Number	Mean Number Of Fears	Std. Deviation	Std. Error Mean
Number of fears With MR	88	27.7727	21.6108	2.3037
Without MR	122	41.9016	14.1237	1.2787
Severity of fears With MR	88	45.3068	36.5341	3.8946
Without MR	122	64.5984	25.9251	2.3471

**Table V:** The distribution of children with and without mental retardation in the sample in relation to the number of fears and intensity of fears (Significance test: Mann-Whitney U).

	Number	Mean Rank	Sum of Ranks	u	p
Number of fear With MR	88	78.57	6914.00	2998.0	0.0001 p<0.05
Without MR	122	124.93	15241.00		significant
Total	210				
Severity of fear With MR	88	83.60	7356.50	3440.5	0.0001 p<0.05
Without MR	122	121.30	14798.50		significant
Total	210				

**Table VI:** The distribution of children with mental retardation in relation to the sex of children and the number of fears and intensity of fears.

(With MR) Gender	No.	Mean No. Of Fears	Std. Deviation	Std. Error Mean	t	p
No. of fear Female	32	30.4688	22.5517	3.9866	0.884	0.379 p>0.05
Male	56	26.2321	21.1058	2.8204		nonsignificant
Severity of fear Female	32	47.3438	33.6439	5.9475	0.540	0.695 p>0.05
Male	56	44.1429	38.3346	5.1227		nonsignificant

**Table VII:** The distribution of children without mental retardation in the sample according to the sex of children and the number of fears and intensity of fears.

(Without MR) Gender	No.	Mean No. of Fears	Std. Deviation	Std. Error Mean	t	p
No. of fear Female	63	45.1587	13.8450	1.7443	2.70	0.008 p<0.05
Male	59	38.4237	13.6902	1.7823		significant
Severity of fear Female	63	69.7302	26.6653	3.3595	2.299	0.023 p<0.05
Male	59	59.1186	24.1440	3.1453		significant

the ratings, "fire outbreak" and "child kidnappers" also occupy important places. In a study in which 5-15 year-old 400 school children expressed their fears, Jersild, Markey and Jersild (1933), some of the pioneers of fear studies classified fear into 18 categories and presented it in the form of a list (Draper and James, 1985).

\*Wounds-injuries and physical dangers, \*Animals, \*Bad people, thieves, etc., \*Supernatural events, secrets, mysterious events, \*Darkness, solitude, abnormal sights, malformations, \*Nightmares and ghosts, \*Harassment, being accused, failure, \*Losing things belonging to one's self, \*Sickness, being wounded, death of a close relative, \*losing a parent or close relative, \*other people being wounded, quarrels-fighting \*stunning events and noises, \*frightening noises, stories, movements, \*Terrifying events, \*Some people and objects \*Marriage, \*Nothing, \*No idea.

According to Graziano (1978) fear in children starts when the child is exposed to a fear provoking event; this can be internal ie, something from inside or from the external ie, something from the environment. In some situations both entities may prevail. (Smith,et.al.,1990). In the development of the above fears parents and the environment are thought to be effective. The conditions mentioned above are conditions likely to create danger results for the child, his family or environment. For this reason, children are likely to be warned by their parents frequently. From time to time the media can also arouse these fears in children. With the effect of the media children can become afraid of conditions like war, terrorism, supernatural events and natural disasters which in actual fact are not encountered by the child.

Fear of being beaten, punished, hit on the buttocks, going to the dentist, and being immunised may be learned fears. Previous experience of the children plays a role in identifying the potential objects/conditions of fear by the child. They may fear pain producing events like being beaten up, visiting the dentist by recollecting their past encounters with such states. In other words, children learn to fear these provoking situations or objects.

According to the results of studies conducted, children with mental retardation experience less numbers and less severe fears than children without mental retardation. When the levels of mental development in the children included in the mentally retarded group of the study sample was compared in the Ramirez and Kratochwill (1997) sampling study, it was seen that the average IQ of the children was 67 (interval 50-81), in the trainable level group (mild retardation). The children in our study sample could be thought of as not developed enough to perceive the fear provoking items asked in the questionnaire because they were from the trainable category (Moderately retarded). This also seems to confirm the relationship between mental development and expression of emotional reactions defended in the studies by Cicchetti and Sroufe (1976, 1978), Ganiban et al., (1993), Gallagher, Jens and O'Donnell (1983), Cicchetti and Sroufe (1978) and Bauer.

Several investigators like Croake (1969), Croake and Knox (1973), Orton (1982), Davidson (1985) in their studies conducted found girls to fear more than boys do (Smith, et.al., 1990,154). In a study by Ramirez and Kratochwill, in terms of the number and severity of fear, children with mental retardation and girls without mental retardation were found to

have more fears than normal boys. (Ramirez ve Kratochwill, 1997, 89).

In studies by Bauer,1976; Houston, Fox and Forbes, 1984; Lapouse and Monk, 1959; and Ollendick et al., 1985; Pratt(1945) fear was found to be more prevalent in girls. While some investigators are of the advocate that this lies in the fact that girls readily express their fear, others are in of the view that this lies in families treating their children differently based on gender differences. Thus, according to these investigators families tend to accept fears of their daughters more easily than those of their sons. (Kendall and Ronan, 1990).

The difference between boys and girls without mental retardation was not found to be significant in the study conducted. Because the intelligence level of the children in the study sample was within the educatable levels and the number of fear episodes and its severity was not yet apparent in these children no significant difference due to gender could be observed.

In our country, mothers and fathers of children with mental retardation usually behave in a restrictive manner with their children. They don't believe that their children can take care of themselves and live independently. Therefore the children with mental retardation can not improve their self-esteem. Because of this the children with mental retardation have more frequent and more severe fears than the normally developing children.

### References

Browne, K. (1993) Violence in the Family and Its Links to Child Abuse, *Bailliere's Clinical Pediatrics*, vol.1, no.1, Copright Bailliere Tindall, pp.149-163.

Deverensky, J.L. (1979) Children's Fears: A Developmental Comparison of Normal and Exceptional Children. *The Journal of Genetic Psychology*, 135, pp.11-21.

Draper,Thomas, W.; James, Rebecca Smoak (1985) Pre-school Fears: Longitudinal Sequence and Cohort Changes. *Child Study Journal*, vol:15, no:2, pp:147-156.

Ganiban, J.; Wagner, S.; Cicchetti, D. (1993) Temperament and Down Syndrome. *Children With Down Syndrome* (Eds) Cicchetti, Dante. (Cambridge University Press, 1993, USA).

Gebeke, Deb; (1994) *Children and Fear*. North Dakota State University Extension Service, U.S., <http://ndsuext.nodak.edu>

Heward, W.L. (1996) Students with Mental Retardation. *Exceptional Children An Introduction to Special Education*, pp.144, Merril Prentice Hall, Englewood Cliffs, New Jersey, Columbus, Ohio, Printed in the USA.

Kendall, P.C.; Ronan, K.R. (1990) Assesment of Children's Anxieties, Fears and Phobias: Cognitive-Behavioral Models and Methods. *Handbook of Psychological & Educational Assesment of Children, Personality, Behavior, Context*, (Eds) Cecil R. Reynolds, Randy W. Kamphaus (New York, The Guilford Press).

Ramirez, S. Z.; Kratochwill, T.R. (1990). Development of the Fear Survey for Children with and Without Mental Retardation (FSCMR). *Behavioral Assessment*, 12, pp. 457-470.

Ramirez, Sylvia Z.; Kratochwill, Thomas R.(1997) Self-Reported Fears in Children With and Without Mental Retardation. *Mental Retardation*, vol:35, no:2, pp:83-92.

Robinson III, Edward H.; Rotter, Joseph C., Fey, Mary Ann; Robinson, Sandra L. (1991) Children's Fears: Toward a Preventive Model. **The School Counselor**, January, vol:38, pp:187-202.

Smith, Deborah J.; Phyllis, M. Davidson; White, Priscilla N.;

Poppen, William A. (1990) An Integrative Theoretical Model of Children's Fears, **Home Economics Research Journal**, vol:19, no:2, pp:151-158.

Yavuzer, H., (1992) **Child Psychology**, 8th edition, Remzi Kitabevi, Istanbul.

Zelfa, R.S. (1988) Mentally Retarded and Non-Mentally Retarded Children's Self-Reported Fears: A relevance, Stability and Comparative Study. **Dissertation Abstracts International**, 1988, 49 (9), pp.2595.