Assessment of Posttraumatic Stress Disorders in Kindergarten Children in Mosul City

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Abstract:

A descriptive study was carried out on kindergarten children in Mosul city for assessment of post traumatic stress disorders. The sample of the study consisted of 372 child, chosen from (14) kindergarten in Mosul city for the period from 2nd January to 15th April 2004.

The data were collected by using teacher's checklist which consisted of (24) items distributed to three areas (physiological, psychological and cognitive), and another (24) items for mother's checklist distributed to the same above areas.

The validity of the study tool was done by presenting it to a panel of experts, while the reliability was done through test and retest, Pearson's Coefficient Correlation was used, for mothers r=0.872 and for teachers, r=0.811.

The results of the study show of that there are real problems in all areas from the teacher's and mother's point's of view. The cognitive problems come first in rank from the teacher's point of view, while psychological problems come first in rank from mother's point of view. The study also revealed that there are no significant differences between the occurrence of PTSD and variables of study (age, sex and order in the family) from the teacher's point of view, while from mother's point of view, there are significance differences between the occurrence of PTSD and above variables

The study recommends the importance of Providing safety for children, the most known victims of war, establish centers to lodge war victims' children, and enhance the family's role in attention of the child's complaints through the social solidarity.

تقييم الاضطرابات الناجمة عن الضغوط النفسية لدى أطفال الروضة في مدينة الموصل

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ملخص البحث :

دراسة وصفية أُجريت على أَطفال الروضة في مدينة الموصل لتقييم الاضطرابات الناجمة عن الضغوط النفسية لدى الأطفال.

شملت عينة الدراسة (٣٧٢) طفلاً تم اختيارهم من (١٤) روضة للفترة من ٢ كانون الثاني إلى١٥ نيسان ٢٠٠٤.

تم جمع المعلومات باستخدام استمارة مكونة من (٢٤) فقرة للمعلمة موزعة على ثلاثة أبعاد (الفسلجي، النفسي، الإدراكي) و(٢٤) فقرة للام موزعة على ثلاثة أبعاد أعلاه.

تم التأكد من صدق الأداة من خلال عرضها على مجموعة من الخبراء، كذلك تم التأكد من ثباتها من خلال الاختبار وإعادة الاختبار على عينة محدودة وكان معامل الارتباط بيرسون بالنسبة للمعلمات (r=0.872) وللأمهات (r=0.811).

أشارت نتائج الدراسة إلى أن هناك اضطراباً في كل المجالات التي شملها البحث من وجهة نظر المعلمة وألام ، حيث جاءت الاضطرابات الإدراكية في الترتيب الأول من وجهة نظر المعلمة، في حين جاءت الاضطرابات النفسية في الترتيب الأول من وجهة نظر ألام. وأشارت نتائج الدراسة إلى عدم وجود فروق ذات دلالة معنوية في حدوث الاضطرابات تبعاً لبعض المتغيرات (العمر ، الجنس ، تسلسل الطفل في العائلة) من وجهة نظر المعلمة ، في حين توجد فروق ذات دلالة معنوية بين المتغيرات السابقة الذكر وحدوث الاضطرابات من وجهة نظر ألأم. أوصى الباحثون بتوفير الحماية لأطفال ضحايا الحروب، إنشاء مراكز لإيواء هؤلاء الأطفال وتعزيز دور الأسرة في تخفيف معاناة الطفل من تعزيز التكافل والتضامن الاجتماعي.

Introduction:

Early childhood is the most important period of human life because the child in this period is effectible with environment, which affects all his life later. Such effect assures the theoretical and experimental heritage of psychology about the importance of this period in the child's life and its effects on his personality in the future (النوري، ١٩٨٢).

Environment has an early impact during the early period of child life where the mental and social development increased, supposing that character aspects are changeable during the period of excessive speed in growth, which happened to be at the early period of life. (ابراهيم، ١٩٨٧).

A child may be faced with difficult situations and stressing experiences or painful events like physical abuse, maltreatment, tragedies of war, natural or human catastrophes, loss or death of one of the parents and other actions. These events will affect their development, growth course, relations with others, and way they look at themselves, life and future. (البلبلاوي، ٢٠٠١).

Post-traumatic stress disorders (PTSD) is a state in which individual experiences and sustained painful response to an overwhelming traumatic event which can occur immediately following an events, a year later, or any time in between (Ackley and Ladweing 1995).

Exposure to traumatic experiences has been well established as a cause of PTSD and other types of psychopathology among children and effects their behaviors tangibly. This has been found in many countries under war zones. (Paardekooper, 1999; Clark and Bridges 1990).

PTSD can occur in people at any age , even children associated with symptoms of depression, anxiety, increased irritability, and impaired psychosocial and physiologic function. (Wilson and Knsil, 1996).

PTSD can result when a person has experienced a trauma out side the range of normal human experience, also it can occur following traumatic events such as serious threat or harm to one's physical well being, sudden loss of one's home or community, and witnessing an accident that results in a serious injury or death of another person.

(Lantz, 1995)

Symptoms of PTSD can occur from hours to years after the trauma has been experienced. Traumatized children may display the same symptoms of hyper-arousal and numbing that adult do, but children are more likely to express psychological distress by behavioral problems, school difficulties and regression, such as clinging bed wetting and anger displays (Bernstein, 1999).

There are real physiological, psychological and cognitive problems among children, they also show the effects of violence, air raids and excessive force on children, (American Psychiatric Association, 1994).

Onset of PTSD varies among individuals and can be formed a few hours or days to months or to years after the stress. (Camphell and humphreys, 1993).

Assessment of child with PTSD should include the nature, duration of the symptoms, the previous personality and psychiatric history. (Gelder, et.al. 1995).

Assessment also includes identification of the patient's pre-trauma history, the trauma itself, and post trauma functioning. (Smeltzer and Bare, 2000)

Objectives of the Study:

1. To identify the PTSD among kindergarten children from teacher's and mother's point of view according to the following problems: -

A-Physiological

B-Psychological

C-Cognitive

2.To determine the differences in the PTSD among kindergarten children with regard to some demographic characteristics of the children (age, sex and order of the child).

Methodology:

A descriptive design was carried out through out the present study from the period 2nd January to 15th April 2004. Data were collected in (14) kindergartens from (28) kindergartens in Mosul city, (7) kindergartens in each bank of city. The target population were (2634) children.

The sample of the study selected according to the following criteria.

1. The child should be a regular attendant in the kindergarten.
2. The child may not be an orphan of both parents.
3. Agreement of the family to participate in the study.
4. The children were in elementary class.
5. Children who were alert, alternative and cooperating.

According to these, the total sample who participated in the study were (372) children. More than half of the children (58.1%) were at five years age group and they are males. It is also obvious, that a high percent of the children (41.9%) were born as the first child in the family.

Constructing the tools of study:

Due to the absence of a standard or universal tool to assess the PTSD for this age, the researcher prepared the tool depending on the

DSM IV, I.C.D10, observation the child's behavior into kindergarten and through a preliminary study directed to the both mothers and teachers.

The tool consisted of two parts:-

- **Part I:** Checklist for mothers which contains (30) items related to physical, psychological, and cognitive complaint.
- **Part II:** Checklist for teachers which contains also (30) items related to physical, psychological, and cognitive complaint.

Validity of the Instrument:

To achieve the suitability of the tools, the researchers exposed the tools to a committee of specialized experts consist of (10) experts in different fields. The researchers calculated the agreement ratio between the different opinions of those consulted. After analysis the responses of the experts and calculation of the differences between those who agreed and those who disagreed by using chi-square test. The final draft of the teacher checklist and mother checklist consist of (24) items for each tool, (8) items for each complains (physical, psychological and cognitive). The final draft had (3) option alternative responses. (Allways=2, Sometime=1 and Never= Zero)

Reliability of the Instrument:

Reliability is a major criterion for assessing the instrument quality and adequacy, also it is the degree of consistency in which the instrument measures the attribute it is supposed to be measuring.

(Polit and Hungler,1999)

For testing the reliability of the checklist, a pilot study was conducted in (5) kindergarten in Mosul city during the period 2nd of January to 23rd of January 2004.

The teacher's checklist was administrated to (10) teachers, (2) teachers in each kindergarten, and mother's checklist was administrated to (10) mothers, (2) mothers in each kindergarten, after a period of (21) days, the same checklist was administrated to the same group to find out the correlation between the scores of pre and post test . Pearson's Coefficient Correlation was used. The results were (r=0.827and 0.811) for the teacher's checklist and mother's checklist respectively. Both were significant at (p. <0.01).

Data Collection:

Data were collected about PTSD in children teacher's and mother's point of view by using the self administration technique in completing the scales.

Result

In order to identify the objectives of the study, the results of the study were in sequence with the objectives as following:

1. In order to achieve the first objective regarding P.T.S.D in all areas of complain (physiological, psychological & cognitive) among kindergarten children from teacher's point of view. Rank mean of the total PTSD showed that the cognitive problems are first in rank ($\overline{X}$=14.5), psychological problems are second in rank ($\overline{X}$=13-14.25) and the physiological problems are last in rank, as mentioned below in table(1).

Table (1) Rank mean of the total PTSD of the children from the teacher's point of view.

Disorder	$\overline{X}$	S.D	Rank
Cognitive	14.500	4.237	1
Psychological	13.425	3.583	2
Physiological	10.801	2.713	3

While to identify the P.T.S.D in children from mother's point of view, rank mean of the total PTSD showed that the psychological problems come first in rank ($\overline{X}$=13.194), physiological problems are second in rank ($\overline{X}$=13.645), while the cognitive problems are last in rank ($\overline{X}$=10.613) as mentioned below in table (2).

Table (2): Rank mean of the total PTSD of the children from the mother's point of view.

Disorder	$\overline{X}$	S.D	Rank
Physiological	13.194	1.893	2
Psychological	13.645	2.434	1
Cognitive	10.613	2.368	3

2. To accomplish the second objectives regarding the differences in PTSD among kindergarten children from teacher's point of view, in relation to demographic characteristics of the children, ANOVA test showed no significant differences between the scores of all areas of PTSD (physiological, psychological, & cognitive) in children with regard to their ages (F=2.970, 0.290 and0.433) respectively as motional in table(3).

Table (3) Comparison between the scores of PTSD of the children from the teacher's point of view with regard to the age of children

Variable	S.O.V	S.S	df	M.S	F-value	P-value
Physiological problems	Between group	43.273	2	21.637	2.970	N.S
	Within group	2688.01	369	7.285		
	Total	2731.28	371			
Psychological problems	Between group	7.478	2	3.739	0.290	N.S
	Within group	4755.42	369	12.887		
	Total	4762.89	371			
Cognitive problems	Between group	15.608	2	7.804	0.433	N.S
	Within group	6645.39	369	18.009		
	Total	6661.00	371			

By using t-test, the results showed no significant differences between the scores of all areas of PTSD (physiological, psychological, & cognitive) among children with regard to their sex from teacher's point of view(t=0.582, 1.476 &1.34 respectively) as mentioned below in table (4).

Table (4) Comparisons between the scores of PTSD of the children from the teacher's point of view with regard to the sex of children

Variable	Group	Number	M.S	S.D	t-value	P-value
Physiological problems	Male	216	10.732	2.558	0.582	N.S
	Female	156	10.897	2.921		
Psychological problems	Male	216	13.657	3.542	1.476	N.S
	Female	156	13.103	3.626		
Cognitive problems	Male	216	14.750	4.264	1.340	N.S
	Female	156	14.154	4.189		

By using ANOVA test it also appears that there are no significant difference between the scores of all areas of PTSD (physiological, psychological, and cognitive) among children with regard to their order from the teacher's point of view (F= 1540, 1.582 & 0.496 respectively). The table (5) below indicate the result.

Table (5) Comparison between the scores of PTSD of the children from the teacher's point of view with regard to the order of children in the family

Variable	S.O.V	S.S	df	M.S	F-value	P-value
Physiological problems	Between group	67.436	6	11.239	1.540	N.S
	Within group	2663.84	365	7.298		
	Total	2731.28	371			
Psychological problems	Between group	120.73	6	20.122	1.582	N.S
	Within group	4642.16	365	12.718		
	Total	4762.89	371			
Cognitive problems	Between group	53.83	6	8.972	0.496	N.S
	Within group	6607.17	365	18.102		
	Total	6661.00	371			

3. To determine the differences in PTSD among kindergarten children from mother's point of view with regard to some demographic characteristics of the children. ANOVA test shows that there are a significant differences at ($p<0.05$) between the scores of all areas of PTSD (physiological, psychological, and cognitive) among children with regard to their ages from the mother's point of view by using ANOVA test (F=3.842, 6559 and 24.167 respectively) as mention in table (6).

Table (6) Comparison between the scores of PTSD of the children from the mother's point of view with regard to the age of children

Variable	S.O.V	S.S	df	M.S	F-value	P-value
Physiological problems	Between group	27.13	2	13.566	3.842	0.05
	Within group	1302.93	369	3.531		
	Total	1330.06	371			
Psychological problems	Between group	75.43	2	37.714	6.559	0.05
	Within group	2121.73	369	5.750		
	Total	2197.16	371			
Cognitive problems	Between group	240.92	2	120.462	24.167	0.05
	Within group	1839.33	369	4.985		
	Total	2080.25	371			

By using t-test, determine the differences in the scores of PTSD of the children from mothers point of view with regard to their sex, results indicate a significant differences at $p<0.05$ between the scores of all areas of PTSD (physiological, psychological, & cognitive) among children with regard to their sex (t= 2.356, 286 & 6.120 respectively) as mention in table (7).

Table (7) Comparison between the scores of PTSD of the children from the mother's point of view with regard to the sex of children

Variable	Group	Number	M.S	S.D	t-value	P-value
Physiological problems	Male	216	13.389	2.342	2.356	0.05
	Female	156	12.923	0.920		
Psychological problems	Male	216	13.889	2.453	2.286	0.05
	Female	156	13.308	2.374		
Cognitive problems	Male	216	11.222	2.746	6.120	0.05
	Female	156	9.769	1.314		

To determine the differences between the scores of PTSD of the children from the mother's point of view with regard to the order of children the family, ANOVA test indicates a significant differences at $p<0.05$ between the scores of all areas of PTSD (physiological, psychological, & cognitive) among children from mothers point of view (F=20.701, c39.492 and 12.917 respectively) as mentioned in table (8) below.

Table (8) Comparison between the scores of PTSD of the children from the mother's point of view with regard to the order of children in the family

Variable	S.O.V	S.S	df	M.S	F-value	P-value
Physiological problems	Between group	337.69	6	56.283	20.701	0.05
	Within group	992.37	365	2.719		
	Total	1330.06	371			
Psychological problems	Between group	864.88	6	144.147	39.492	0.05
	Within group	1332.28	365	3.650		
	Total	2197.16	371			
Cognitive problems	Between group	364.35	6	60.725	12.917	0.05
	Within group	1715	365	4.701		
	Total	2080.25	371s			

Discussion:

PTSD is more common during times or in places characterized by natural or man-made traumatic events. There is little information about the prevalence and heritability of this disorder (Shaner 2000). The exact cause of PTSD is unknown. PTSD is triggered by exposure to traumatic event. Situations in which a person feels intense fear, helplessness or horror are considered traumatic. PTSD has been reported in people who experienced war, rape, physical assault, earthquakes, fire, sexual abuse, accidents, attacks of terrorism and family and community violence (Simpson 2001).

Total rank of PTSD from the teacher's point of view

Result of the study in table (2) indicate that there are problems in all areas (physiological, psychological and cognitive). All problems mean are more than theoretical mean (1). The cognitive problems come first in rank. This result is in agreement with (Michal, 1995), who stated that the cognitive problems are common in preschool children after exposure to natural disaster. Also Janis (1991) agreed that the children who witnessed air raids in war II showed more signs of cognitive disorders than adults. In area of psychological (موسى , 2001) stated that the children who were exposed to war trauma suffer from destructive, aggressive behavior and withdrawal.

Total rank of PTSD from the mother's point of view

The result in table (3) show that there are real problems in all areas from the mothers point of view. The psychological problems come first in rank, physiological problems come second in rank, while cognitive problems come last in rank. This results are in agreement with the result

of (Silva et. al 2000), which shows that about 88% of the children who were exposed to violence suffer from quick temper and insist on sleeping with parents. One of the major reasons of psychological disorders in children is the use of excessive force by occupation forces that use heavy weapons against defenseless citizens and through life action or TV.

Study of Variables

The study revealed that there are no significant differences in physiological, psychological and cognitive problems with regarded to the age and sex of the children from the teacher's point of view (table 4,5 & 8). These may be due to the fact that the teacher does not know all family details, ignores the way parents behave with children within family, and playing effect in the kindergarten , growth of skills and mental abilities for children may cancel the effect of these factors on the occurrence of PTSD .

While the study revealed a significant differences at $P<0.05$ among all problems of PTSD and the variables (age, sex and order of children) from the mother's point of view (table 6,7 and 9).

Younger children learn from their older brothers and sisters. The motor development of the youngest child in a family may be prolonged, as this child tends to be babied by the others in the family. The only child tends to mature intellectually faster but like the youngest child, he/she is apt to be slower in motor development, as a lot is done for her or him (Ahmad 2002).

Unicef report (1995) stated the importance of time and attention to deal with children according to their needs and sufferings because children who witnessed bombing and war crises are in need to express their sad experiences, which require time, understanding and attention from parents. Family usually avoids mentioning the sad events of

children but this behavior is bad for the child health, so that it is better for a child to talk about the bad events in his life, to give him freedom to express his feelings and what he feels through playing, drawing and stories.

Recommendations:

1. Providing safety for children, the most known victims of war.
2. Establish centers to accommodate war victims' children.
3. Developing social counseling programs and psychological therapy by establishing social centers to serve the families and children, the victims of war.
4. Reminding the local society with the importance of preliminary consulting of specialist when facing child disorders through different media.
5. Enforcing the role of family to lessen the child suffering through solidarity and social supporting.
6. Re-considering children recommendations and involve them in designing their special programs.

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