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**ADAPTIVE BEHAVIOR OF CHILDREN WITH THE PARENT SUFFERING FROM  
CANCER**

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**ABSTRACT**

It is one of the requirements of family's physical and mental health to improve the quality of life of children with the parents suffering from cancer, according to the complications of the disease. The aim of this study was to investigate the relationship between adaptive behavior of children with the parent suffering from cancer referred to medical universities selected hospitals affiliated to the Ministry of Health and Medical Education in Tehran with some demographic variables in 1385. Statistical samples of research was 148 children (74 girls and 74 boys) between 6 and 18 years old, that adaptive behaviors of check list (CBCL) offered to their parents (55% mother and 45% father) was measured. The results showed that compatibility of children with parents suffering from cancer is moderate. As well as social merit and behavioral problems of these children is less than average. In terms of gender of parents, compatibility of children with mother suffering from cancer is less than, compatibility of children with father suffering from cancer and Social merit of children with suffering father is less than children with suffering mother. Adaptation, merit and behavioral problems of male children with suffering parents is less than female children with suffering parents. Adaptation show smaller children (under 10 years old) less than two age groups (10 to 14 years and more than 14 years) and behavioral problems of smaller children have been more.

**Keywords: Adaptive behaviors, suffering from cancer, children, demographic characteristics**

## **INTRODUCTION**

Compatibility is a continuous and constant process which has been continuous over time and begins since birth and ends with death and it is a process which during it, a person using adaptive mechanisms tries to inhibit stress factors. Families may also such person require to adaptation with stress factors and in this way maintain their inner balance. For a successful family adaptation should be exist, good skills in communication and mutual respect of family members, adequate resources for adaptation and previous experience about stress factors, personality development of family members and independence and dominance of family members on their duties [1]. One of the problems of life that a child may be faced during growth, suffering one of his favorite adult to a serious illness or facing with death. Facing such situation can cause damage, behavioral and psychological problems, Feeling insecure [2]. It is obvious that cancer as the second leading causes of death in the world and as a disease with chronic and progressive nature can have been profound effects on families [1]. The research results of Gutez and colleagues showed that, Impairment of life quality is clear after cancer treatment primarily in the social sphere as well as the functions of the task.

Most symptoms were in fatigue, sleep disturbance and financial problems. Spouses showed lower subjective quality of life compared to society evaluated anywhere but there was no significant difference in the quality of life and beauty with society. Working full-time, social support and low levels of anxiety and depression had a significant impact on quality of life. Mutually high levels of anxiety and depression in patients were effective in quality of children's life [3]. Berger's study showed that children with parents suffering from cancer show their responses to parent's illness, in the form of disorder in education and social activities [4]. Also Helleni and colleagues stated that these children were anxious compared to other children of same age and their anxiety [5] have shown in the form of physical problems such as abdominal pain, headache, nausea and vomiting. Psychiatrists, pediatricians and health care workers believe that distress experiment in children, play an important role in the development of physical and psychological and how adjustment with problems in adulthood [6]. Stress not only on all of family members but also effects on the entire family, especially children and adolescents [7]. When it is determined that a

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parent has cancer, children and adolescents are at greater risk [8].

Therefore in planning health care also focus on parents with cancer, should be attend to adaptation of children. The first step in this way is informing children of their parent's disease [9].

Bruce and colleagues (2002) in a study pay to evaluate cognitive and psychological stresses adaptation in children with a parent suffering from cancer. The results showed that all three age groups (children, adolescents and young adults) have a low personal control and an high external control over the illness of their parents has been very weak and they has a relatively small adaptation against the problem.

Adolescents and youth has more emotional adjustment and dual adjustment (compatibility with the problem and emotional adjustment) than children. Diagnosis and prognosis stage of the parent's cancer was related, with being more serious the situation and with more stressful and avoid. Children are not able to express their concerns, so need to reviews of behavioral, communication and social competencies to determine the effect of parental cancer and related actions [10].

Talking to children about their parents having cancer is difficult and Adults often try

to conceal the location from their child, but informing to the child about what happened, according to his age and developmental stage, he could cause better adaptation with the parent's disease and sense of security and tranquility [10].

Thus, the present study was performed to investigate the relationship adaptive behaviors of children with a parent suffering from cancer with some demographic variables.

#### **METHODOLOGY**

This research is descriptive – analytical that, 148 children with parents suffering from cancer who referred to various hematological centers and oncology hospitals depending on Universities of Medical Sciences under the Ministry of Health and Medical Sciences in Tehran, were selected by purposive sampling method and participated in the study.

Patients (parents) participated in the study were selected diagnosed with cancer from 1 to 5 years with children 18-4 years. The other criteria for participation in the study was having children that has been a blood relationship with them and they live with them or were in constant contact with the parent diagnosed cancer. Were asked the patients to complete the Child Behavior Checklist (CBCL) for evaluate children adaptive behavior in last 6 months. In the

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case of units that are illiterate or for various reasons were not able to respond to the questionnaire, the questionnaire was readied and completed by the researcher and his colleagues. Collection tool of data was standard questionnaire, based on the Child Behavior Checklist for ages 4-18 years, is provided according to Aachen Bach' parents reporting (1991) [15].

The questionnaire consisted of two parts: one part including demographic characteristics and other part including two other part; first part: social merits that formed 3 major questions in the fields of actions, social communications and academic performance; second part: behavioral disorders questions that formed 102 questions in 10 parts: anti-social behavior, aggressive behavior, difficulty in concentration, physical complaints, anxiety, depression, isolation, disorder in thinking, sexual problems, other problems.

Incidentally, 102th question was openly until, If parents face with a problem other than what mentioned in the checklist can plan it.

In order to obtain some information, such as stage of disease and type of treatment will be used their file. To questionnaire validity and reliability was used of respected professors of the faculty of Tehran University's nursing and midwifery and Shahid Modarres and to

evaluate and cut. To analyze the data was used, the Mann-Whitney U by using the SPSS version 21.

## **RESULTS**

A demographic characteristic of participants is provided in the table below.

Table 3 shows that the highest percent (85.7) of children who have a parent suffering from cancer their adaptation id moderate. Also, 18.8 percent of children whose have a father suffering from cancer, had a moderate adaptation. Mann-Whitney U test shows that, there are no significant differences between compatibility of two children groups who have a mother or father suffering from cancer.

Table 4 shows that the highest percent (70.7) of children who have father suffering from cancer, have social merit less than the average. Also, 56.7 percent of the children who have mother suffering from cancer has social merit less than average. Mann-Whitney U test shows there are no significant differences among social merit of two children groups who have a parent suffering from cancer.

Table 5 shows that the highest percent (94) of children who have mother suffering from cancer, have behavioral problems less than the average. Also, 93.9 percent of the children who have father suffering from

cancer have behavioral problems less than average. Mann-Whitney U test shows there are no significant differences among

behavioral problems of two children groups who have a parent suffering from cancer.

**Table 1: Frequency distribution of absolute and relative age, patient parent’s education level, patient parent’s job, parent, housing status, monthly income, type of cancer, duration of disease**

variable	No	percent	
patient parent age	Less than 30 years old	15	10.1
	30-40	48	32.2
	40-50	36	24.1
	More than 50	50	33.6
patient parent’s education level	illiterate	19	12.9
	Just reading and writing	17	11.6
	primary	34	32.1
	secondary	21	14.3
	diploma	44	29.9
	More than diploma	12	8.2
patient parent’s job	worker	24	16.6
	Employee	30	20.6
	self employed	36	24.9
	Retired	6	¼
	Housekeeper	44	30.4
	Unemployed	4	2.7
	Other	1	0.7
housing status	Personal	92	63
	Rental	54	37
monthly income (one thousand Tomans)	Less than 200	6	4
	200-400	95	63.8
	More than 400	48	32.2
type of cancer	Breast	33	22.1
	Lung	20	13.4
	Prostate	20	13.4
	Intestine	15	10.1
	Uterus	15	10.1
	blood	27	18.1
	others	19	12.8
	6 months until 1 year	23	15.5
duration of disease (year)	1-2	59	39.9
	2-3	43	29.1
	More than 3	23	15.5

**Table 2: Frequency distribution absolute and relative age, child gender Multi-child family, educational level of children and informed children of parents suffering from cancer**

variable	No	percent	
Children age (year)	Less than 10	41	27.5
	10-14	58	38.9
	More than 14	50	33.6
Children gender	girl	74	50
	boy	74	50
Multi-child family (birth rank)	First	44	30.8
	Second	41	28.7
	third	26	18.2
	Fourth and more than 4th	32	22.3
educational level of children	Preschool	12	8.1
	primary	39	26.2

	Middle	36	24.2
	High school	35	23.5
	None	27	18.1
informed children of parents suffering from cancer	Yes	117	79.1
	No	31	20.9

Table 3: Absolute and relative Frequency distribution of adaptation amount of children with parents suffering from cancer

Disease parents Child adaptation	father		mother		Z	P value
	percent	no	percent	no		
Moderate	63	18.8	54	85.7	-0.899	0.369
More than moderate	14	18.2	9	14.3		
total	77	100	63	100		

Table 4: Absolute and relative frequency distribution of social merit amount of children with parents suffering from cancer

P value	Z	mother		father		Disease parents Child social merit
		percent	no	percent	no	
0.173	-1.362	56.7	38	70.7	58	Less than moderate
		43.3	29	29.3	24	moderate
		100	67	100	82	Total
		22.28		20.51		average
		7.93		8.34		Standard deviation

Table 5: Absolute and relative frequency distribution of behavioral problems amount of children with parents suffering from cancer

P value	Z	mother		father		Disease parents Child behavioral problems
		Percent	No	Percent	No	
0.320	-0.994	6	4	6.1	5	Less than moderate
		94	63	39.9	77	moderate
		100	67	100	82	Total
						Average
						Standard deviation

## CONCLUSION

The aim of this study was to investigate the relationship between adaptive behavior of children with a parent suffering from cancer admitted to selected hospitals of the medical sciences universities affiliated to the Ministry of Health and Medical Education with some demographic variables in Tehran in 2006. In connection with determining the adaptive behaviors and comparing it in the two children groups with mother or father

suffering from cancer results showed, the majority of children with mother and father suffering from cancer had a moderate adaptation. According to the results of this research, there are no significant differences among adaptation of two children groups who have a parent suffering from cancer. These findings show that, any way all children, whether mother or father is ill, the patient will have the same impact in their adaptation, this may be due to culture

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differences in Iran. Because in similar studies with the same purpose was conducted by Amy, Vilch and Martha (1996), children who had a mother suffering from cancer showed adaptation less than children with father suffering from cancer. According to results of this research, children with parents suffering from cancer have social merit less than average. There are no significant differences among social merit of two children groups who have a parent suffering from cancer. The researcher believes that the role of the father like mother is highlighted in responsibilities, activities and social relationships, because in our social culture usually the father also was undertake these role. The results of this study show, the majority of children with parents suffering from cancer have behavioral problems less than average. There was no significant difference between behavioral problems in two groups of children who have a mother or father suffering from cancer. Based on the results of this study, the highest percentage of children who have parents suffering from cancer, the sports activities, entertainment and jobs and doing their daily tasks less than average and the social relationships and school performance are moderate. There is no significant difference between amount of sports activities, work and doing daily tasks,

social relations and school performance among children who have a mother or father suffering from cancer, but there are significant differences between entertainments of two children group who have a mother or father suffering from cancer ( $p=0.048$ ). The results of this study are consistent with results of Amy and colleagues, because is reduced amount of taking sport activities, social relations and school performance of these children, but there is no significance difference in this field. This study showed significant difference, between amounts of entertainment two children groups with parents suffering from cancer. So that entertainment amount of children with father suffering from cancer are less than children with mother suffering from cancer. This indicates role and importance of father in keeping with children and all family for entertainment while the role of father in western countries has decreased in most areas. When children are placed in stressful environments may become dependent and with leaving parents to participate in school lead to having separation anxiety and or in children who previously had urination education, created urinary incontinence [10]. According to the obtained results of this study, the majority of children who have a

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parent suffering from cancer, amount of social problems, difficulty in concentration, anti-social behavior, physical complaints, anxiety and depression, isolation, thought disorder, sexual problems, sleep disorders and other problems are lower than average and aggressive behavior is average. There are no significance difference between amount of social problems, difficulty in concentration, anti-social behavior, physical complaints, anxiety and depression, isolation, thought disorder, sexual problems, sleep disorders and other problems are lower than average and aggressive behavior in two children groups who have a mother or father suffering from cancer, but there are significant differences between amount of social problems in two children groups who have a father or mother suffering from cancer ( $p=0.018$ ).

With regard to social problems of children with mother suffering from cancer is more than children with mother suffering from cancer and this increasing is significant and the researcher emphasize on the importance and role of the mother as an important person who complete understanding of his child, in order to identify and control the social problems, of course intangible, while complete freedom of children. With mother's disease addition to reducing affection and

necessary communication of this control will be fainter or that it removes. Watson and colleagues found that although mother's cancer is as a stressor but intensified with mother depression and poor performance of family, cause mental and behavioral problems in children. Families that were consistent with the stress their children have reported fewer problems [13].

Results of Amy's research (1996) support the results of this study. Amy in his research found that children with mother suffering from cancer have more social problems, anxiety and depression and sleep disorder than children with father suffering from cancer and there was a significant difference. Anemic [14] in his research showed that antisocial behavior of children with father suffering from cancer is more than children with mother suffering from cancer; the difference between them was significant that, this conclusion is contrary to the findings of this research. According to this study, researchers found that social merit in sport and entertainment activities, work and doing daily tasks, social relations and school performance of two children groups who have a mother or father suffering from cancer is less than average, means have lowest amount in allocated scores, against children with behavior problems, including a series of

disorders such as isolation, anxiety and depression etc. is less than average. With regard to it is more favorable when behavioral problems are less or whatever social merit is more. In this study, a children adaptive behavior that is the sum of behavioral problems and social merit is average. . Anemic and colleagues in their study in 2005 concluded that there was interactive effects of sexual on adolescent and patient parent, about the external problems (social merit) ( $F=8.4, P=0.004$ ), and general problems (adaptive) ( $F=8.2, P=0.005$ ), This means that, according to the patient parents, especially girls when father was patient had more problems than boys, also adolescents has more internal problems (behavioral problems) ( $p=0/001, F=24.3$ ), more external problems (social merit) ( $F=4.8, P=0.030$ ) and more general problems (adaptive) ( $p=0.001, F=14.5$ ), when father was patient towards the mother was patient. Asin and colleagues identified in their study that more effects and social-psychosocial disorders of children is at the beginning of diagnosis of parent's cancer. Also adolescents showed more problems compared to other age groups and their parents [15]. Huang and colleagues showed signs of low energy and concerns of the future life without parents, as well as

confirmed the relationship between increased stress and the frequency of treatment and hospitalization [16].

Research of Bruce and Nancy in 2000 emphasizes that the Adolescents adaptation when their mother or their father have cancer does not change much. In general, researchers believe that due to the result of their research, there are no different between adaptive behaviors two children group who have a mother or father suffering from cancer, this can be due to cultural and religious differences in our country, because in our religion, the father had an important role and therefore in the sight of the children, father has a special significance and In many cases, girls have better communication with fathers towards their mothers and probably because father's illness is effective as much as mother's illness and of culturally, obligations of parents is such that, Despite the illness of one of the parents, healthy parent fill the role of illness parent. But Research of Brown and colleagues showed that girls with mother suffering from cancer had less adaption towards control group. Boys showed less depression than girls. In general, children with mother suffering showed symptoms of depression, anxiety and syndrome of post trauma disorder [17]. Watson and his colleagues don't find

significant differences between girls and boys in terms of behavioral and psychological problems [13].

In relation to the purpose and the first question that, how is demographic characteristics of children, healthy parents and parents suffering? And determine the relationship of children adaption with a parent suffering from cancer with some demographic variables, researcher is examined and compared children adaptation with demographic characteristics. Based on the findings obtained from this study, the majority of children who their patient parents are Muslim, non-Persian language, illiterate and unemployed have a moderate adaptation. There is no significant relationship between adaptive behaviors of children with parents suffering from cancer with religion and language of their parents, But there is a significant relationship between the adaptive behaviors of children suffering from cancer and education level ( $p=0.033$ ) and work ( $p=0.018$ ) of their parent.

In research of Anemic was reduced children adaptation who had illiterate parents and their relationship had been significant among them ( $p=0.001$ ). The researcher believes that literacy is effective in the attitude of the patient and his information about his illness that finally effect on how deal with the

family and children. Also about having job, addition to supply of economic needs, caused entertaining the patient and also think less about their disease, causing a positive effect on patients and their families. Children adaptation with healthy parents that their parents are illiterate, employed and retired, also has a one-child family, rental housing and are township is average mod. Wang and colleagues suggest to receive social supports, such as listening and understanding, encouragement and reassurance, tangible assistances, communication and information about cancer and the use of experiences in the personal life for children with parents suffering from cancer [10]. Rhonda and her colleagues due to the damaging effects and created stresses offer to receive social supports for these children [18]. Kun and his colleagues according their research results suggest that counseling centers can present supportive interventions that have special focus on adaptation of adolescents and their family's performance [13]. According to the results of the present study, children with parents suffering from cancer are need to social supports.

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