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Psychosocial Impact of Hospitalization on Ill Children in Pediatric Oncology Wards

Khamees B. Obaid, PhD in Nursing

Abstract:
Background: *Cancer and hospitalization can be the major crisis that a child encounters .A diagnosis of cancer often involves long hospital stays from days to months for the pediatric oncology patient in Iraq with limited access to psychologists, psychiatrists and social workers. Consequently, many patients experience psychosocial problems as a result.*
Objective(s): *The aims of this study was to assess psychosocial impact of hospitalization on ill children, ages from 6 to 12 years in Pediatric Oncology Wards and to find relationship between sociodemographic variables for child ,family and illness such as child's gender, age, type of treatment, frequency of hospitalization, parental education, etc.*
Methodology: *Seventy-five participants (mothers), from two different hospitals, were recruited using a non-probability (purposive) sampling strategy. Data collection included interviews with (n=75) of parents of pediatric oncology patients from the Children Welfare Teaching Hospital and Central Child Teaching Hospital in Baghdad city (2012 to 2013).The Child Behavior and Psychosocial Problems checklist was used to evaluate psychosocial impact. Cut of point used to determine the level of psychosocial impact of hospitalization on children and using correlation analysis were computed to determine the relationship of sociodemographic variables to the psychosocial impact of hospitalization on ill children in oncology ward.*
Results: *The results of the study indicated that impact of hospitalization was mild on the most of the participants (n = 50; 66.0). Moreover, the results showed significant relationships between the frequency of hospitalization and duration of hospitalization.*
Recommendations: *The researchers recommend applied special program for preparation of children for the experience of hospitalization and recommend to the Ministry of Health to develop special training program for the medical staff to deliver mental health services to the all children in oncology wards.*
Conclusion: *Hospitalization is still have many psychosocial impact on children in oncology wards. Identification of psychosocial risk factors based on the Child behavior and psychosocial problems could be helpful in predicting child psychopathology and could help in decrease psychosocial problems related to hospitalization*
Keywords: *Psychosocial, Hospitalization, Children and Oncology Wards*

I. Introduction

Cancer disease and hospitalization can be a major crisis that a child encounters, that lead to change in health condition and daily routine. One of the this crisis are the psychosocial problem. The hospitalization have impact on children's psychosocial status in many ways such as problem in the behavior, personal feelings, or interpersonal relationships of a child with family, school, and community[(1)].

Hospitalization plays an important role in the care of children's health, especially children that admitted to oncology unit or require intensive medical care. Hospitalization has many unfavorable effects on children, which need to be recognized and treated [(2)]. It is critical to reduce the negative effects of hospital stay and to minimize physical, emotional and social trauma often caused by such variables as pain, fear, treatment options, and unknown outcomes. An admission to the hospital means being separated from one's family and known surrounding, experiencing a change in daily routine and going through a series of unpleasant experiences opposite to the need of the child's development [(3)].

The literature shows that 30% of hospitalized children experience psychosocial problems as a result of short and long term impact of hospitalization[(4)]. Hospitalization have impact on children's psychological health [(5)]. The hospital is consider as an unfamiliar environment for most children [(6)].

In addition to different physical surroundings, children encounter many unpleasant experiences that include painful procedures as well as side unpleasant effects from chemotherapy treatments. These changes in their day to day life style can cause regressive behavior, which is a coping mechanism often observed with hospitalization. Any developmental problems or emotional difficulties need to be addressed with interventions provides to normalize the hospital environment for children [(7)].

Pediatric cancer remains a life-threatening illness and is the second leading cause of death in children ages 5-14 years old in the United States of America [8]. The diagnosis and treatment of cancer are stressful and a threatening experience, which can be emotionally devastating to children. Despite the improved prognosis in high income countries (HIC), the course of cancer treatment may have a tremendous negative impact on a child's experience due to prolonged hospital stays on the oncology unit [2]. Fear of painful procedures and treatment, a perceived threatening hospital environment, concerns about failing in school, family, friends and boring environment contribute to the negative psychosocial impact on the patient [9].

Most children who have cancer need to be admitted to the hospital, with some patients having a long length of stay. The hospital can be an unfamiliar environment that lead to change in the routine of daily living [10].

Stressful of hospitalization may include frequent restrictions of activities and dependence on others, leading to feelings of vulnerability, and developmental problems [8]. In addition, anxiety increased by diagnostic, radiological, or other procedures can give rise to fear of staff, procedures, needles, infections, loss of control, long hospital stays, relapses, fear of dying, other children dying, check-up results, separation from friends, lack of independence, hospital environment, lack of activities, and restriction of movement, Chemotherapy, medical tests, invasive surgeries. [11]

Long term illness and hospitalization has the potential to negatively impact a child's motor, cognitive, emotional and social development [2].Childhood cancer is a chronic, life-threatening disease, which is considered a crisis not only for the children, but also for his/her entire family and social environment [6].

The psychosocial reaction of children to the hospitalization depends on significant variables such as the child's age, gender, personality traits, kind and severity of cancer, type of treatment, frequency and duration of inpatient length of stay. Also relationships between the medical staff and the patient and his family, the child's relationship with his own family and the parent's reaction to the cancer diagnosis and hospitalization can also have a psychosocial impact on the patient [9] [12].

Inappropriate staff, treatment and hospitalization conditions can have detrimental effect on children psychosocial development and can experience emotional problems later in life [13].

Hospitalization is a serious change that can impact on child's emotional, physical and developmental needs[14].

Psychosocial support of children it is important not only to the patient but to the family members, including siblings, as well. Psychosocial support can be provided by a therapist, social worker, psychiatrist, child life therapist as well as physician and nursing staff [11] [4]. The role of the psychosocial therapist is to prepare and support children and facilitate coping; therefore, therapists are able to devote all of their attention to the individual's emotional needs, acknowledging their feelings and supporting them during difficult procedures [15].

Most negative experiences of hospitalized children are due to poor attention to developmental needs of children in health care planning in hospitals [13 [2]. Preparing children for hospitalization, clinic visits, diagnostic and therapeutic procedures is another important part of a child life program. Many hospitals and other health care facilities are developed programs that familiarize the children and their families with the hospital environment and common procedures they will encounter. These programs help reduce emotional disturbances in hospitalized children Oncology unit [16].

Coping strategies of both child and parents and their psychological health, support from parents and staff, information and psychological preparation [17].

During a child's period of hospitalization, all members of the hospital staff should be able to prevent or decrease psychosocial impact of hospitalization on ill children (Wallace, 1948). Family play a vital role decrease psychosocial stressors that hospitalized children experience, the effect of these stressors, and the coping process of the child Roberts (1972)

II. Methods

Design: A Quantitative, descriptive study was conducted in the oncology wards of two pediatric hospitals in Baghdad city . Formal agreement was obtained from the ministry of health and reviewed and approved y "special committee" at University of Baghdad. Approval checking with Medical Director).

Setting: The administrative permissions were obtained from Ministry of Heath, Children Welfare Pediatric Teaching Hospital, and Child's Central Pediatric Teaching Hospital. The study conducted at two pediatric teaching hospitals: Child's Center Pediatric Teaching Hospital and Children Welfare Pediatric Teaching hospital in Baghdad city. The two pediatric oncology wards in this hospitals were similar in nature and setting

Sample: A non-probability (purposive) sample seventy-five 75 parents of children, ages 6-12 years, suffering from cancer. All parents they staying with their children during hospitalization in oncology wards. The parents observed their children's behavior and provided information on psychosocial problems and frequency of hospitalization, onset, and duration of the illness and the age of the child at the disease onset. The inclusion criteria include all children should be aged 6 to 18 years and should be diagnosed with cancer within the

previous 3 months and undergoing chemotherapy or radiation therapy. During the interview the researcher explained the purpose of this study to the parents. Then all participant invited to participate in this study. All participant assured of the confidentiality of information

Data Collection:

Method of data collection the investigator held a direct interview to obtain data from child's parent member who responsible about care of children and staying with their children during hospitalization. The questionnaire format consisted of two parts: the first part identified socio-demographic characteristics related to children and their parents such as child's gender, age, child's rank , duration of illness ,age on illness onset ,number of hospitalization admission ,duration of hospitalization, type of treatment ,father's and mother's education ,father's and mother's occupation , type of family and family income with psychosocial impact of hospitalization and illness data related to the children. The second part is related to the psychological and social impact of hospitalization on children in oncology units. Parents were asked whether their child had the following symptoms of the child's anxiety, fear, the child's mood, and most common child's reaction to hospital. This questions were reflect impact of the hospitalization in ill children in oncology wards that observed by parent. The respondents were administered demographic and psychological and social impact of hospitalization questionnaire A questionnaire was developed on the basis of a review of the literature and Pediatric Symptom Checklist (PSC) and Child Behavior Checklist for ages 6-18.This questionnaires was modified and valid by a group of experts .Each interview took 20 to 30` min.

Data Analysis:

Data were analyzed through the application of statistical procedures and using the package of SPSS version (16).Statistical procedures are descriptive statistical approach (frequency and percentage) ,Mean ,Standard deviation and correlation analysis

III. Results

Table 1: The defining characteristics of the children and parents are provided in Table 1. (n=75)

List	Variable	Frequency	Percent %
1	Gender		
	Male	55	73.3
	Female	20	26.7
2	Age		
	6-9	54	72.0
	10-12	21	28.0
3	Child's Rank		
	1st	28	37.3
	2nd	37	49.3
	3rd	10	13.3
4	Duration of Illness		
	1-3 years	61	81.3
	4-6 years	10	13.3
	7 years or more	4	5.3
5	Age on Illness: M (SD) =		
	1-4	23	30.7
	5-8	38	50.7
	9-12	14	18.7
6	Frequency of Hospitalization		
	1-2	23	30.7
	3-4	11	14.7
	5 or more	41	54.7
7	Duration of Hospitalization		
	1-7 days	8	10.7
	8-14 days	15	20.0
	15 days or more	52	69.3
8	Type of Treatment		
	Surgical Intervention	4	5.3
	Chemotherapy	61	81.3
	Radiation Therapy	5	6.7
	Mixed	5	6.7
	Other	0.0	0.0
9	Father's Education		
	Does not read and write	5	6.7
	Primary school graduate	22	29.3
	Secondary school graduate	27	36.0
	Other	21	28.0
10	Mother's Education		
	Does not read and write	16	21.3
	Primary school graduate	26	34.7
	Secondary school graduate	24	32.0
	Other	9	12.0

11	Father's Occupation Unemployed Employed Retired Self-employed	 10 34 2 29	 13.3 45.3 2.7 38.7
12	Mother's Occupation Housewife Employed Retired	 50 13 12	 66.7 17.3 16.0
13	Family Type Nuclear Extended	 29 46	 38.7 61.3
14	Monthly Income Sufficient Somewhat Sufficient Insufficient	 5 24 46	 6.7 32.0 61.3

Most of the children were male (73.3%) and the most common treatment that was received was chemotherapy (81.3%). Most patients diagnosed were between the ages of 6-9 years old (72.0%), according to child's rank in the family, most (49.3%) are the second child, with most of the patients duration of illness from 1-3 years (81.3%), according to age on illness about (50.7 %) of children have 5-8 years.(36.0) and (32.0%) of their fathers and their mothers respectively have secondary school graduate, (45.3%) of their fathers are employed while (66.7%) of child's mothers are at home(house wife), (61.3%) of children live in extended family and (61.3%) of children have insufficient monthly income.

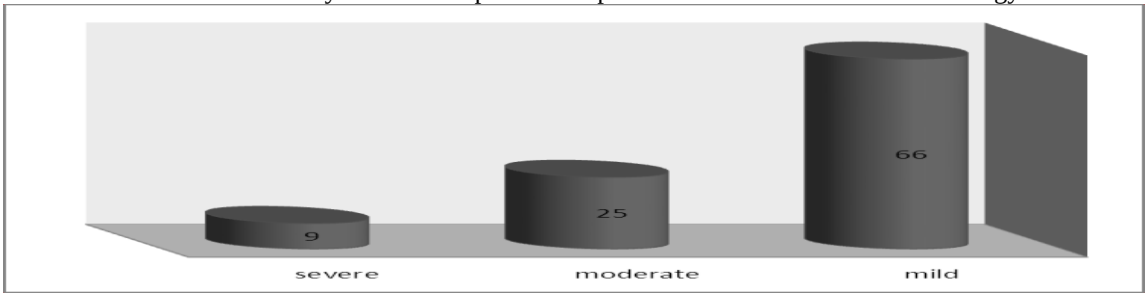
Table 2. Mean Standard Deviation, Weighted Mean and Relative Sufficiency of the Psychological impact of Hospitalization

List	Items	M +/-(SD)	Weighted Mean	Relative Sufficiency
	Psychological Effects			
1	Your child has fear because of his hospitalization	1.2 ± 0.4	46.3	0.72
2	Your child suffers from anxiety because of his hospitalization	1.1 ± 0.3	46.67	0.72
3	Afraid of the hospital staff	1.5 ± 0.5	38.7	0.94
4	Afraid of death because he is in hospital	1.3 ± 0.5	42.7	0.80
5	Your child suffers from mood change because he is in hospital	1.0 ± 0.3	48	0.70
6	Your child became bad tempered after hospital admission, especially after any remedial action	1.2 ± 0.4	45.3	0.74
7	hostile behavior - like hitting stuff- due to the entry to the hospital	1.5 ± 0.5	36.7	0.92
8	Acting nervously and cannot controls his temper	1.4 ± 0.5	40	0.89
9	Became stubborn because of hospitalization	1.2 ± 0.4	46	0.73
10	Feels upset when he is in hospital	1.1 ± 0.3	48	0.70
11	Sometimes , he refuses to receive any remedial action	1.3 ± 0.5	42	0.82
12	feels that his illness and hospitalization is kind of punishment for him	1.6 ± 0.5	34.3	0.73
13	The child became disoriented , because of his hospitalization	1.5 ± 0.5	37	0.95
14	Nervous when he was in hospital	1.1 ± 0.4	46.3	0.72
15	Nervous when presenting any remedial action to him	1.2 ± 0.4	45	0.75
16	Feels sad and uncomfortable because he is in hospital	1.1 ± 0.3	47.3	0.71
17	Feels tired after any effort	1.9 ± 0.3	48	0.70
18	Feels lazy because he is in hospital	1.3 ± 0.4	43.7	0.78
19	Suffers from a lack of sleep ,because of hospitalization	1.3 ± 0.5	41.3	0.84
20	A change in the sleep pattern of the child because of its presence in the hospital	1.3 ± 0.5	42.7	0.81
21	Disturbance of child`s sleep because of its presence in the hospital	1.3 ± 0.5	42.3	0.81
22	Your child suffers from a change in appetite because of his hospitalization	1.2 ± 0.4	45	0.75
23	Your child suffers from dependence on others	1.4 ± 0.5	40	0.89
24	Sometimes feels that his life has become short	1.7 ± 0.5	32	0.59
25	Your child is worried about his illness and its complications	1.5 ± 0.5	37	0.95
26	Your child has less desire of taking care of himself after hospitalization	1.4 ± 0.5	39	0.93
27	Your child feels that family life has been changed because of his illness and hospitalization	1.4 ± 0.5	41	0.85
28	The child blames his family for his illness and hospitalization	1.7 ± 0.5	32.7	0.63

Table 3. Mean Standard Deviation, Weighted Mean and Relative Sufficiency of the Social impact of Hospitalization

List	Items	M (SD)	WT Mean	Relative Sufficiency
1	The child changed his way of dealing with others because of hospitalization	1.3 ± 0.6	44	0.71
2	Your child become little concerned for others because of the hospital	1.5 ± 0.8	41.7	0.77
3	Became more dependent on family members after admission to hospital	1.3± 0.6	46	0.71
4	became isolated and doesn't interact with others because of hospital	1.7 ± 0.9	38.7	0.84
5	The child feels scared of the community because of illness and hospitalization	1.7± 0.9	35.7	0.83
6	Changed his way of talking with others .	1.6 ± 0.9	41.3	0.79
7	Child hates associating with others Because of his illness and hospitalization	1.7± 0.9	35.7	0.91
8	Child is less involved in playing with others because of his illness and hospitalization	1.7 ± 0.9	40.7	0.83
9	Child has limited relationship with his friends	1.5± 0.9	41.3	0.78
10	Due to illness ,and to hospitalization your child became distant from his brothers	2.2 ± 0.9	32.3	0.75
11	Due to illness ,and to hospitalization your child has less desire to exercise his hobbies	1.7 ± 0.9	37.7	0.83
12	Increased absence from school because of the frequent admission to the hospital	1.3 ± 0.7	45.3	0.72
13	His study levels were reduced because of the frequent admission to the hospital	1.4 ± 0.7	43.3	0.73
14	Child wants to drop from school because of the frequent admission to the hospital	1.5± 0.8	41.3	0.77
15	Your child hates to be reminded of the disease and the hospital	1.2 ± 0.6	45	0.70
16	Your child notices when people feel sorry and have empathy for him	1.5 ± 0.8	40.7	0.77

Table 4. Total level of Psychosocial Impact of Hospitalization on Ill Children in Oncology Wards



This table showed total level of psychosocial impact of hospitalization on ill children in oncology wards it was about 66% of sample had mild impact while 25% of sample had moderate impact.

Table (5): Represent the correlation among variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1-Age Group	1														
2-Gender	-.083**	1													
3-Child's Rank	-0.06	-0.07	1												
4-Age on Illness onset	.089*	.105**	-.648**	1											
5-Family Type	.105**	.214**	0.029	-.110**	1										
6-Frequency Of Hospitalization	-0.04	-0.01	0.01	0.08	-0.03	1									
7-Type of Treatment	.147**	0.001	.099*	0.027	-0.04	.142**	1								
8-Duration of Hospitalization	0.062	-.080*	.080*	0.02	0.001	0.006	0.062	1							
9-Duration of Illness	0.062	.080*	0.02	0.001	0.006	0.045	0.025	0.05	1						
10-Family Income	0.011	.119**	.113**	-.083*	.096*	-.111**	0.062	0.026	0.035						
11-Father's Education	0.023	.143**	-0.03	0.064	-.090*	-.102*	0.004	0.075	0.041	0.022	1				
12-Mother's Education	0.07	-.131**	-0.01	-0.04	0.039	.134**	-0.06	-.093*	-0.04	.081*	0.045	1			
13-Father's Occupation	0.03	.084*	-.100*	0.005	0.055	0.015	-0.03	0.058	.078*	.102*	0.05	0.003	1		
14-Mother's Occupation	0.046	0.07	-0.03	0.065	-0.02	0.031	0.027	-0.02	-0.03	.105**	-0.01	.130**	0.140	1	
15-Psychosocial Impact Of Hospitalization	**0.042**	**0.073**	**0.003**	**0.049**	**-0.04**	**-.213****	**-0.03**	**-.100***	**0.06**	**-0.12**	**0.038**	**0.05**	**-0.03**	**0.05**	**1**

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

psychosocial impact of hospitalization. Two variables were statistically significant and independently determined of psychosocial impact of hospitalization: frequency of hospitalization and duration of hospitalization.

IV. Discussion

Hospitalization and cancer are the most stressful events that children encounters and they have many impacts with regard to the psychological aspect. According to this study about (66.0%) of children experience mild psychosocial effects during inpatient stays. These results supported by study conducted by (Crnković et al. 2009) [(1)] that found the majority of children (78%) have negative thoughts about their homes, families , schools and friends while at hospital. Our study showed the children during staying in hospital have many psychosocial problem like anxiety ,fear and isolation ,this results are consistent with literature by (Coyne,2006) reports which state that children increase fear anxiety and worrying in hospitalized ,Coyne showed that the children appeared anxiety caused by the disease or by hospitalization , anxiety regarding the impact of the illness and death or the ability to care for oneself, were the main experiences by participants[(18)] .

general results of our study showed there is a significant relationship between the psychosocial impact of hospitalization with frequency and duration of hospitalization, these results are contrast with study done by (Bonn ,1994) [(14)] that reported Prolonged and repeated hospitalization are effect on psychosocial status of children and increases the chance of later problems. (Kelly & Hewson, 2001[(19)]; Pao et al., 2007 [(20)]) studies concluded that frequent hospitalization of sick children causes psychological dysfunctions. Repeated or prolonged hospitalization may put excessive demands on the children because of separation from the family and friends and restricting their participation in social activities (Haslum, 1988) [(21)].Our study found relationship between the duration of illness and the psychosocial problems of children in contrast to some Western studies (Jacobson et al., 1997[(22)]; Matsumoto & Fletcher, 1996 [(23)]; McPherson et al., 2006[(24)]; Tebbi et al., 1990) [(25)].

V. Conclusion and Recommendations

Hospitals and oncology unit present situations that are unknown, numerous challenges and have a psychosocial impact on children. In an effort minimize the psychological effects of hospitalization on the child an understanding of the causes, the needs of children and effective interventions must be understood. One of the most important elements in minimizing the psychosocial stressors of hospitalization on pediatric oncology patients are the healthcare team .evaluate appropriate psychological nursing interventions that can minimize children's emotional distress and anxiety during the course of treatment in hospital. We need to find ways to reduce the stress of diagnosis and treatment and improve the standard of care offered by the multidisciplinary team. Nurses reduce the psychosocial impact of hospitalization on children by showing the importance of experience and feelings of individuals at the time of hospitalization and help children and their family to adapt themselves to their new environment surrounding.

According to the findings of the results and the conclusion of the study the researcher recommended suggestions to decrease the psychosocial impact of hospitalization on the pediatric oncology patient that include the following:

- Prepare each child in advance for the hospital experience through special program such as (special guideline or special meeting .another study need to test the effective of this guideline or this meeting in reducing their impact of hospitalization on child's psychosocial status during admission
- Prepare appropriate psychological guideline help the children in reduce the burden of cancer management
- Recommend to my Ministry of Health to develop special training program for the medical staff to deliver mental health services to the all children in oncology unit.

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