



## Relationship Between Quality of Palliative Care for Children with Malignancies and Mothers' Level of Education

Hadeer Hameed Rasheed <sup>1</sup>, Zaid W. Ajil <sup>2</sup>.

<sup>1</sup> Pediatric Nursing Department, College of Nursing, University of Baghdad, Baghdad, Iraq.

<sup>2</sup> Pediatric Nursing Department, College of Nursing, University of Baghdad, Baghdad, Iraq.

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### ABSTRACT

**Objectives:** To (1) find out the association between palliative care for children with malignancies and mothers' level of education, and (2) investigate the differences in the quality of palliative care among mothers' level of education groups.

**Methodology:** Descriptive predictive correlational design is carried out to find The Difference Between palliative care for Children with Malignancies and mothers' level of education. This study was conducted in each of Pediatric Welfare Teaching Hospital – Medical City Complex and Child's Central Teaching Hospital – Al-Karkh Health Directorate, Baghdad City. Data were collected through structured interview with the study participants for the period from December 2nd, 2022 to January 31st, 2023. A non-probability (convenience) used to select sample of 165 mothers of children with malignancies.

**Results:** The study results display that the palliative care is good from the perspectives of most of mothers (n = 114; 76.0%), followed by those who perceive it as fair (n = 31; 20.7%), and those who perceive it as poor (n = 5; 3.3%).The study results reveal that there is a statistically significant difference in the Psychosocial and spiritual dimensions among mothers' level of education groups (p-value = .016).

**Conclusion:** Mothers who hold a bachelor's degree perceive the psychosocial and spiritual dimensions as the lowest compared to mothers of other levels of education.

**Recommendations:** There is a need for the pediatric nurses to devote special attention to mothers of children with malignancies whose level of education is low with the goal of raise their awareness of the palliative care their children are receiving.

**Keywords:** Difference, palliative care, Malignancies, level of education.

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CORRESPONDING AUTHOR: Hadeer Hameed Rasheed,  
Pediatric Nursing Department, College of Nursing, University of  
Baghdad, Baghdad, Iraq.  
Email: [hadeer.hameed2104m@conursing.uobaghdad.edu.iq](mailto:hadeer.hameed2104m@conursing.uobaghdad.edu.iq).

## الخلاصة

**اهداف الدراسة:** تهدف هذه الدراسة إلى (1) ايجاد العلاقة بين جودة الرعاية التلطيفية والمستوى الدراسي للأمهات (2) التحقق من وجود الفروقات في جودة الرعاية التلطيفية للأطفال المصابين بالأورام بين مجموعات المستوى التعليمي للأمهات.

**منهجية البحث:** تصميم وصفي تنبؤي ارتباطي للتعرف على العلاقة بين جودة الرعاية التلطيفية للأطفال المصابين بالأورام والمستوى التعليمي للأمهات. أجريت الدراسة في دائرة مدينه الطب/ مستشفى الحميات ودائرة صحة الكرخ / مستشفى الطفل المركزي. تم جمع العينات للمدة من 2022/1/2 الى 2023/1/31 من خلال مقابلة مهيكله للمشاركات، وتم اختيار 165 أم اطفالهم مصابين بالأورام بطريقة غير احتمالية ملائمة.

**نتائج الدراسة:** اظهرت نتائج الدراسة أن الرعاية التلطيفية جيدة من وجهة نظر معظم الأمهات (ن = 114؛ 76.0٪)، يليها أولئك الذين يعدونها متوسطة (ن = 31؛ 20.7٪)، وأولئك الذين يرونها ضعيفة. (ن = 5؛ 3.3٪) وكذلك أظهرت نتائج الدراسة وجود فروق ذات دلالة إحصائية في البعدين النفسي والاجتماعي والروحي بين مستوى الأمهات في المجموعات التعليمية (القيمة الاحتمالية = 0.016).

**الاستنتاج:** ترى الأمهات الحاصلات على درجة البكالوريوس أن الأبعاد النفسية والروحية هي الأدنى مقارنة بالأمهات في المستويات التعليمية الأخرى.

**التوصيات:** هناك حاجة إلى أن تولي ممرضات الأطفال اهتمامًا خاصًا لأمهات الأطفال المصابين بأورام خبيثة والذين يكون مستوى تعليمهم منخفضًا بهدف تنويرهم فيما يتعلق بالرعاية الملطفة التي يتلقاها أطفالهم.

## INTRODUCTION

Malignancy is an uncommon illness that necessitates special care for the patients and family from the moment of diagnosis. It is a leading cause of death worldwide and the mortality rate of children with cancer has dropped by over half (1, 2).

Also, Cancer can affect child's and his mother mental health due to frequent hospital visits (3). Childhood cancer is a widely public health problem because of its negative influence on family and society (4).

Asia, incidence rate of chronic myelogenous leukemia (CML) differs between 0.39 to 0.9 per 100,000, supported by data obtainable in eight states in Asia: China, Hong Kong, India, the Philippines, Singapore, South Korea, Taiwan and Thailand (5).

Many types of cancer can develop during childhood, such as carcinoma, thyroid cancer due to Hashimotos thyroiditis, Hodgkin and non-Hodgkin lymphomas, leukemia, neuroblastoma, Wilms tumor, rhabdomyosarcoma, retinoblastoma, bone cancer (including osteosarcoma and Ewing sarcoma), tumors of the brain and spinal cord (6).

Palliative care in all its guises is built upon the premise of holistic care. A defining feature of palliative care, however, is its attention to spiritual

care and spirituality, which is paramount for individuals as they face advancing disease and their passing and that of their families as they anticipate their loss (7).

Sometime the chemotherapy y used as a palliative study with children suffering from cancer (8), Studies have shown that spiritual wellbeing impacts on the experience of physical symptoms and wellbeing and that psychological symptoms can be heightened if the individual has unresolved spiritual needs or distress (9), although members of the IDCT typically have a common understanding of disease and death, parent populations should never be subjected to generalizations. Although team members' familiarity with one another can occasionally result in efficiency and cohesion within the team, skipping the required steps to develop a caring relationship with parents increases the danger of unwarranted harm going forward.

This is especially important once a patient's illness starts to worsen (10) The IDCT's members are "challenged to respond to the pains and fears parents are experiencing," and seek to use communication to battle them. All parties involved in these conversations should be encouraged to speak honestly because, when discussing death openly, the

"subject itself becomes less taboo, resulting in increased parental comfort in having those conversations outside of the hospital, and ultimately leading toward increased parental comfort in reopening the discussion as more thoughts and questions inevitably emerge" (11). In the end, the most crucial component of starting EOL conversations with parents is being able and willing to listen to what they have to say and being ready for the unpredictable nature of anxiety, emotions, and expectations. The ability for parents of children with cancer to deal with these stressors may depend largely on supportive care (12).

### AIMS OF THE STUDY

This study aims to (1) find out the association between palliative care for children with malignancies and mothers' level of education, and (2) investigate the differences in palliative care among mothers' level of education groups.

### METHODOLOGY

**Study Design:** This study was based on a descriptive predictive correlational design. The study was conducted for the period from December 26th, 2022 to March 31st, 2023.

**Ethical Considerations:** The student researcher addressed study details with representatives from the Pediatric Welfare Teaching Hospital after gaining approval from the College of Nursing, University of Baghdad, for the study – Medical City Complex and Child's Central

Teaching Hospital – Al-Karkh Health Directorate, Baghdad City, The researcher gave study participants additional assurances that their identities would be kept anonymous in the presentation, reporting, and/or any potential publishing of the study.

**Setting of the Study:** The study was conducted at 3 hospitals in a Medical City.

**Study Sample:** The study included a convenience sample of 165 mothers of children with malignancies. Subjects are included in the study because they happen to be in the right place at the right time, which is known as convenience sampling, a type of non-probability sampling.

The desired sample size is achieved by researchers adding available subjects to the study. There are several options for choosing a convenience sample.

**Data Collection Methods:** The Data were collected through structured interview with the study participants for the period from December 2nd, 2022 to January 31st, 2023. Structured interviews are verbal exchanges with participants that provide the researcher increasing levels of control over the interview's content with the aim of gathering crucial information. Each mother was given about (10-15) minutes to complete the test.

**Data Analysis:** The data of the present study were analyzed through the use of the Statistical Package of Social Sciences (SPSS) version (26).

**RESULTS:****Table (1): Mothers' sociodemographic characteristics (N = 150)**

Variable	Age Group	Frequency	Percent
Age (Years)	17-24	24	16.0
	25-32	58	38.7
	33-40	30	20.0
	41-48	22	14.7
	49 and above	16	10.6
	<b>Mean (SD): 34.30 ± 10.61</b>		
Level of education	Read and write	40	26.7
	Elementary school graduate	56	37.3
	Middle school graduate	24	16.0
	High school graduate	14	9.3
	Associate degree	5	3.3
	Bachelor's degree	11	7.3

SD: Standard deviation

The study results reveal that the mothers' mean age is  $34.30 \pm 10.61$ ; less than two-fifth age 25-32-years ( $n = 58$ ; 38.7%), followed by those who age 33-40-years ( $n = 30$ ; 20.0%), those who age 17-24-years ( $n = 24$ ; 16.0%), those who age 41-48-years ( $n = 22$ ; 14.7%), and those who age each of 49-56-years and 57-65-years ( $n = 8$ ; 5.3%) for each of them. Concerning mothers' level of education, less than two-fifth are elementary school graduates ( $n = 56$ ; 37.3%), followed by those who read and write ( $n = 40$ ; 26.7%), those who are middle school graduate ( $n = 24$ ; 16.0%), those who are high school graduate ( $n = 14$ ; 9.3%), those who hold a bachelor's degree ( $n = 11$ ; 7.3%), and those who hold an associate degree ( $n = 5$ ; 3.3%).

**Table (2): Children's clinical information**

Diagnoses	Frequency	Percent
Miscellaneous	18	12.0
Leukemia	88	58.7
Ganglioneuroma	4	2.7
Hemophagocytic lymphohistiocytosis	1	.7
Sarcoma	4	2.7
Solid	5	3.3
Lymphoma	5	3.3
Myeloma	5	3.3
Hepatoplastoma	9	6.0
Kidney cancer	4	2.7
NB	2	1.3
Tumor of the genitalia	2	1.3
Jaw tumor	1	.7
Splenomegaly	2	1.3
Total	150	100.0
Duration of diagnosis	577 (days)	1862.74
Hospitalization duration	25.01	80.29

The study results demonstrate that more than a half of children experience leukemia ( $n = 88$ ; 58.7%), followed by those who experience miscellaneous malignancies ( $n = 18$ ; 12.0%), those who experience hepatoplastoma ( $n = 9$ ;

6.0%), and those who experience each of lymphoma and solid tumors ( $n = 5$ ; 3.3%) for each of them. The mean duration of diagnosis is  $577 \pm 1862.74$  days, and the mean hospitalization duration is  $25.01 \pm 80.29$  days.

**Table (3): Palliative care levels**

Palliative care levels	Class	Frequency	Percentage
	Fair	31	20.7
Poor	5	3.3	
Good	114	74.0	

The study results display that the palliative care is good from the perspectives of most of mothers ( $n = 114$ ; 76.0%), followed by those who perceive it as fair ( $n = 31$ ; 20.7%), and those who perceive it as poor ( $n = 5$ ; 3.3).

**Table (4): Relationship between mothers' level of education and level of palliative care**

Mothers' level of education		Palliative Care Levels			Total
		Poor	Fair	Good	
Read and write	Count	0	8	32	40
	% within Level of education	0.0%	20.0%	80.0%	100.0%
	% within Palliative Care Levels	0.0%	25.8%	28.1%	26.7%
	<b>% of Total</b>	<b>0.0%</b>	<b>5.3%</b>	<b>21.3%</b>	<b>26.7%</b>
Elementary school graduate	Count	3	13	40	56
	% within Level of education	5.4%	23.2%	71.4%	100.0%
	% within Palliative Care Levels	60.0%	41.9%	35.1%	37.3%
	<b>% of Total</b>	<b>2.0%</b>	<b>8.7%</b>	<b>26.7%</b>	<b>37.3%</b>
Middle school graduate	Count	1	5	18	24
	% within Level of education	4.2%	20.8%	75.0%	100.0%
	% within Palliative Care Levels	20.0%	16.1%	15.8%	16.0%
	<b>% of Total</b>	<b>0.7%</b>	<b>3.3%</b>	<b>12.0%</b>	<b>16.0%</b>
High school graduate	Count	0	1	13	14
	% within Level of education	0.0%	7.1%	92.9%	100.0%
	% within Palliative Care Levels	0.0%	3.2%	11.4%	9.3%
	<b>% of Total</b>	<b>0.0%</b>	<b>0.7%</b>	<b>8.7%</b>	<b>9.3%</b>
Associate degree	Count	0	0	5	5
	% within Level of education	0.0%	0.0%	100.0%	100.0%
	% within Palliative Care Levels	0.0%	0.0%	4.4%	3.3%
	<b>% of Total</b>	<b>0.0%</b>	<b>0.0%</b>	<b>3.3%</b>	<b>3.3%</b>
Bachelor's degree	Count	1	4	6	11
	% within Level of education	9.1%	36.4%	54.5%	100.0%
	% within Palliative Care Levels	20.0%	12.9%	5.3%	7.3%
	<b>% of Total</b>	<b>0.7%</b>	<b>2.7%</b>	<b>4.0%</b>	<b>7.3%</b>
Total	Count	5	31	114	150
	% within Level of education	3.3%	20.7%	76.0%	100.0%
	% within Palliative Care Levels	100.0%	100.0%	100.0%	100.0%
	<b>% of Total</b>	<b>3.3%</b>	<b>20.7%</b>	<b>76.0%</b>	<b>100.0%</b>

Fisher-Freeman-Halton Exact Test = 9.014; df = 10; P-value = .456

df: Degree of freedom; P-value: Level of significance.

The study results display that there is no relationship between mothers' level of education and the level of palliative care.

**Table (5):** Difference in the palliative care dimensions among mothers' level of education groups

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
<b>Availability of caregivers</b>	Between Groups	37.191	5	7.438	.704	.621
	Within Groups	1521.642	144	10.567		
	<b>Total</b>	<b>1558.833</b>	<b>149</b>			
<b>Serenity</b>	Between Groups	35.397	5	7.079	1.896	.098
	Within Groups	537.563	144	3.733		
	<b>Total</b>	<b>572.960</b>	<b>149</b>			
<b>Information</b>	Between Groups	14.003	5	2.801	.688	.633
	Within Groups	585.870	144	4.069		
	<b>Total</b>	<b>599.873</b>	<b>149</b>			
<b>Pain management</b>	Between Groups	11.837	5	2.367	2.114	.067
	Within Groups	161.236	144	1.120		
	<b>Total</b>	<b>173.073</b>	<b>149</b>			
<b>Caregiver's listening skills</b>	Between Groups	46.234	5	9.247	1.626	.157
	Within Groups	818.759	144	5.686		
	<b>Total</b>	<b>864.993</b>	<b>149</b>			
<b>Psychosocial and spiritual dimensions</b>	Between Groups	142.419	5	28.484	2.907	.016
	Within Groups	1411.075	144	9.799		
	<b>Total</b>	<b>1553.493</b>	<b>149</b>			
<b>Respect for the patient</b>	Between Groups	83.226	5	16.645	1.113	.356
	Within Groups	2152.968	144	14.951		
	<b>Total</b>	<b>2236.193</b>	<b>149</b>			
<b>Palliative Care</b>	Between Groups	1276.676	5	255.335	2.011	.080
	Within Groups	18281.917	144	126.958		
	<b>Total</b>	<b>19558.593</b>	<b>149</b>			

df = Degree of freedom; F = F-statistics; Sig. = Significance.

The study results reveal that there is a statistically significant difference in the Psychosocial and spiritual dimensions among mothers' level of education groups ( $p$ -value = .016).

## DISCUSSION

The study results display that palliative care is good from the perspectives of most mothers ( $n = 114$ ; 76.0%), followed by those who perceive it as fair ( $n = 31$ ; 20.7%), and those who perceive it as poor ( $n = 5$ ; 3.3%). This finding reflects that the health team (physicians and nurses) have adequate competencies related to palliative care since they received the required training courses pertaining to palliative care.

Parents can maintain their internal status as the child's primary caretaker and protector by being given the opportunity to actively participate in their

child's care. It might also aid in giving parents a sense of control over a situation that they actually have no real control over.

Regarding the difference in the palliative care dimensions among mothers' level of education groups, the study results revealed that there was a statistically significant difference in the psychosocial and spiritual dimensions among mothers' level of education groups. Further post-hoc analysis demonstrated that mothers who hold a bachelor's degree perceive the psychosocial and spiritual dimensions as the lowest compared to mothers of

other levels of education, The level of education is impacted to elevated the knowledge related to pain management with children have cancer <sup>(13)</sup>, while the study in Iraq shown (51%) of the study sample their education was primary <sup>(14)</sup> and other in same country the educational level more than half of them (60%) <sup>(15)</sup> were graduated from secondary school. In my opinion, this finding could be explained as that mothers who hold a bachelor's degree may be more knowledgeable about palliative care, psychology, and spirituality compared to mothers of other levels of education. Pease and McMillin (2018) stated that although members of the IDCT typically have a common understanding of disease and death, parent populations should never be subjected to generalizations. In the end, the most crucial component of starting EOL conversations with parents is being able and willing to listen to what they have to say and being ready for the unpredictable nature of anxiety, emotions, and expectations <sup>(16)</sup>.

The roles of IDCT participants don't stop with the patient's medical requirements. Members of the team will be required to be accessible to families even after curative therapy has failed, as the culture of medicine shifts more and more toward patient and family-centered care.

## CONCLUSION

Palliative care is good from the perspectives of most mothers. Mothers who hold a bachelor's degree perceive the psychosocial and spiritual dimensions as the lowest compared to mothers of other levels of education. There is a need for the pediatric nurses to devote special attention to mothers of children with malignancies whose level of education is low with the goal of enlighten them in terms of the palliative care their children are receiving.

## RECOMMENDATIONS:

There is a pressing need by the Iraqi Ministry of Health to devote greater health efforts with the goal

developing the palliative care, particularly in the critical care units in pediatric hospitals

There is a need for the pediatric nurses to devote special attention to mothers of children with malignancies whose level of education is low with the goal of enlighten them in terms of the palliative care their children are receiving.

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