

## The Results

**THE RESULTS**; are shown in **tables** from ( 1-9 )

**TABLE 1 SHOWS** :The demographic characters of 100 pediatric cancer patients their age ranged from 10 -18 years ,including 60 males and 40 females.

**TABLE 2 SHOWS** :The diagnosis and related predictors in pediatric cancer patients.

**TABLE 3 SHOWS** : The psychological parameters in pediatric cancer patients.

**TABLE 4 SHOWS** : The association of patient demographic characters, diagnosis and disease predictors to Anxiety .

**TABLE 5 SHOWS** : The association of patient demographic characters, diagnosis and disease predictors to Deprssion.

**TABLE 6 SHOWS** : The association of patient demographic characters, diagnosis and disease predictors to Aggression .

**TABLE 7 SHOWS** : The association of patient's demographic characters, diagnosis and disease predictors to behavior disorders.

**TABLE 8 SHOWS** : The association of patient demographic characters, diagnosis and disease predictors to Coping Process

**TABLE 9 SHOWS** : The association between the socioeconomic stander of pediatric cancer patients as an

independent outcome and the related psychological parameters & other related diagnosis predictors.

**TABLE (10) SHOWS :** Percentage of Psychiatric parameter in general population and cancer children in our work

**Table (1 ) demographic data of 100 pediatric patients :**

		Count
Age group	10 to 14.5	41
	14.5 to 18	59
Sex	Male	60
	Female	40
Diagnosis	Leukemia	65
	Lymphoma	35
Education	Obligatory	41
	Secondary	59
Residence	Urban	62
	Rural	38
Socioeconomic stander	Below moderate	55
	moderate	30
	High	15

**Table ( 2 ) diagnosis and related predictors in pediatric patents :**

		Count
Diagnosis	Leukemia	65
	Lymphoma	35
Duration of the disease	From 3 to 6 months	13
	From 6 to 30 month	79
	> 30 month	8
Past history of psychiatric illness	Positive	7
	Negative	93
Family psychiatric history	Positive	9
	Negative	91
Insight to illness	Yes	31
	No	69
Religious believe	God is W. me in my illness	95
	God is against me in my illness	2
	God has no thing to do in my illness	3
Social support	Emotional only	43
	Instrumental only	25
	Informational only	4
	Emotional and instrumental only	16

	<b>Emotional and Informational only</b>	<b>7</b>
	<b>Instrumental and Informational only</b>	<b>3</b>
	<b>No support</b>	<b>2</b>

**Table ( 3 ):** The psychological parameters in pediatric cancer patients.

<b>Psychiatric parameters</b>		<b>Count</b>
<b>Anxiety</b>	<b>No anxiety</b>	<b>63</b>
	<b>Moderate anxiety</b>	<b>27</b>
	<b>Sever anxiety</b>	<b>10</b>
<b>Depression</b>	<b>No Depression</b>	<b>61</b>
	<b>Mild Depression</b>	<b>18</b>
	<b>Moderate Depression</b>	<b>12</b>
	<b>Sever Depression</b>	<b>9</b>
<b>Aggression</b>	<b>No Aggression</b>	<b>83</b>
	<b>Indirect Aggression</b>	<b>10</b>
	<b>Aggressive Aggression</b>	<b>4</b>
	<b>Direct Aggression</b>	<b>3</b>
<b>Behaviour disorders</b>	<b>Positive</b>	<b>19</b>
	<b>Negative</b>	<b>81</b>
<b>Coping process</b>	<b>Active cognitive</b>	<b>34</b>
	<b>Active behavioral</b>	<b>18</b>
	<b>Avoidance</b>	<b>12</b>
	<b>A. cognitive &amp; behavioral</b>	<b>15</b>
	<b>A. cognitive &amp; Avoidance</b>	<b>12</b>
	<b>A. behavioral &amp; Avoidance</b>	<b>9</b>

**Table ( 4 ) Association of patients characteristics, diagnosis and disease predictors to anxiety**

<b>anxiety</b>								
		<b>no anxiety</b>		<b>moderat anxiety</b>		<b>severe anxiety</b>		
		<b>Count</b>	<b>Col %</b>	<b>Count</b>	<b>Col %</b>	<b>Count</b>	<b>Col %</b>	<b>p value</b>
<b>age group</b>	<b>10 to 14.5</b>	<b>35</b>	<b>55.6</b>	<b>5</b>	<b>18.5</b>	<b>1</b>	<b>10.0</b>	<b>0.001 **</b>
	<b>14.5 to 18</b>	<b>28</b>	<b>44.4</b>	<b>22</b>	<b>81.5</b>	<b>9</b>	<b>90.0</b>	
<b>sex</b>	<b>male</b>	<b>39</b>	<b>61.9</b>	<b>14</b>	<b>51.9</b>	<b>7</b>	<b>70.0</b>	<b>0.53(NS)</b>
	<b>female</b>	<b>24</b>	<b>38.1</b>	<b>13</b>	<b>48.1</b>	<b>3</b>	<b>30.0</b>	
<b>diagnosis</b>	<b>leukemia</b>	<b>47</b>	<b>74.6</b>	<b>15</b>	<b>55.6</b>	<b>3</b>	<b>30.0</b>	<b>0.01 **</b>
	<b>lymphoma</b>	<b>16</b>	<b>25.4</b>	<b>12</b>	<b>44.4</b>	<b>7</b>	<b>70.0</b>	
<b>eduction</b>	<b>obligatory</b>	<b>35</b>	<b>55.6</b>	<b>5</b>	<b>18.5</b>	<b>1</b>	<b>10.0</b>	<b>0.001 **</b>
	<b>secondry</b>	<b>28</b>	<b>44.4</b>	<b>22</b>	<b>81.5</b>	<b>9</b>	<b>90.0</b>	
<b>residence</b>	<b>urban</b>	<b>41</b>	<b>65.1</b>	<b>16</b>	<b>59.3</b>	<b>5</b>	<b>50.0</b>	<b>0.62</b>
	<b>rural</b>	<b>22</b>	<b>34.9</b>	<b>11</b>	<b>40.7</b>	<b>5</b>	<b>50.0</b>	
<b>duration of the disease</b>	<b>from 3 to 6 monthes</b>	<b>8</b>	<b>12.7</b>	<b>4</b>	<b>14.8</b>	<b>1</b>	<b>10.0</b>	<b>0.57</b>
	<b>from 6 to 30 month</b>	<b>52</b>	<b>82.5</b>	<b>19</b>	<b>70.4</b>	<b>8</b>	<b>80.0</b>	
	<b>&gt;30 month</b>	<b>3</b>	<b>4.8</b>	<b>4</b>	<b>14.8</b>	<b>1</b>	<b>10.0</b>	
<b>past history of psychatry disease</b>								<b>&lt; 0.001</b>
	<b>positive</b>			<b>2</b>	<b>7.4</b>	<b>5</b>	<b>50.0</b>	
	<b>negative</b>	<b>63</b>	<b>100.0</b>	<b>25</b>	<b>92.6</b>	<b>5</b>	<b>50.0</b>	
<b>family psychatric history</b>								<b>&lt; 0.001</b>
	<b>positive</b>	<b>1</b>	<b>1.6</b>	<b>1</b>	<b>3.7</b>	<b>7</b>	<b>70.0</b>	
	<b>negative</b>	<b>62</b>	<b>98.4</b>	<b>26</b>	<b>96.3</b>	<b>3</b>	<b>30.0</b>	
<b>Insight to illness</b>	<b>yes</b>	<b>14</b>	<b>22.2</b>	<b>10</b>	<b>37.0</b>	<b>7</b>	<b>70.0</b>	<b>0.007</b>
	<b>no</b>	<b>49</b>	<b>77.8</b>	<b>17</b>	<b>63.0</b>	<b>3</b>	<b>30.0</b>	
<b>religious beleive</b>	<b>god is w me in my illness</b>	<b>63</b>	<b>100.0</b>	<b>25</b>	<b>92.6</b>	<b>7</b>	<b>70.0</b>	<b>&lt; 0.001</b>
	<b>god is against me w my illness</b>					<b>2</b>	<b>20.0</b>	
	<b>god has no thing to do w my illness</b>			<b>2</b>	<b>7.4</b>	<b>1</b>	<b>10.0</b>	
<b>social support</b>	<b>emotional</b>	<b>30</b>	<b>47.6</b>	<b>11</b>	<b>40.7</b>	<b>2</b>	<b>20.0</b>	<b>0.006</b>
	<b>instrumental</b>	<b>17</b>	<b>27.0</b>	<b>6</b>	<b>22.2</b>	<b>2</b>	<b>20.0</b>	
	<b>informational</b>	<b>1</b>	<b>1.6</b>	<b>3</b>	<b>11.1</b>			
	<b>emotional and</b>	<b>10</b>	<b>15.9</b>	<b>4</b>	<b>14.8</b>	<b>2</b>	<b>20.0</b>	

	instrumental						
	emotional and informational	3	4.8	2	7.4	2	20.0
	instrumental and informational	2	3.2	1	3.7		
	none					2	20.0

## Anxiety

**The table(4) shows the association of characteristic demographic data and disease predictors to anxiety.**

### *Relation of age group to anxiety*

The table shows that in patient aged from( 10-14.5 Years ) there were 35 patients out of 41 patients ( 85.4% ) had no anxiety, 5 patients ( 12.2% ) had moderate anxiety and 1 patient ( 2.4%) had severe anxiety.

While in patient aged from (14.5-18) there were 28 patient (47.45%) out of 59 patients had no anxiety, 22 patients (37.3%) moderate anxiety and 9 patients ( 15.2 %) had severe anxiety

***Accordingly  $p\text{ value} = 0.001 < 0.05$  ( highly significant )***

i.e. there is a real increase in probability of having anxiety in pediatric cancer patients regarding to age with increase in anxiety in older age group.

### *Relation of sex to anxiety*

The table shows that in male patients there were 39 patients out of 60 patients(65%) had no anxiety, 14 patients ( 23.3% ) had moderate anxiety and 7 patients ( 11.7% ) had severe anxiety

While in female patients there were 24 patients(60%) out of 40 patients (60%) had no anxiety, 13 patient ( 23.25) had moderate anxiety and 3 patients(7.5%) had severe anxiety

***Accordingly  $p\text{ value} = 0.53 > 0.05$ ( not significant)***

i.e. there is no real increase in probability of having anxiety in pediatric cancer patients regarding to sex.

### *Relation of diagnosis to anxiety*

The table shows that in patients with leukemia there were 47 patients out of 65 patients(72.3%) had no anxiety, 15 patients(23.1% ) had moderate anxiety and 3 patients( 4.6%) had severe anxiety.

While in patient with lymphoma there were 16 patients out of 35 patients( 45.7%) had no anxiety, 12 patients( 34.3%) had moderate anxiety and 7 patients ( 20%) had severe anxiety.

*Accordingly value =0.01<0.05 ( significant ) .*

i.e there is real increase in probability of having anxiety in pediatric cancer patients regarding to diagnosis. with increase in anxiety in lymphoma.

*Relation of education to anxiety;*

The table shows that in patients in obligatory education there were 35 patients out of 41 patients( 85.4%) had no anxiety, 5 patients ( 12.2%) had moderate anxiety and 1 patient( 2.4%) had severe anxiety

While in patients in secondary education there were 28 patient out of 59 patients( 47.4%) had no anxiety, 22 patients ( 37.3%) had moderate anxiety and 9 patient ( 15.25%) had severe anxiety

*According p value =0.001<0.05 ( highly significant )*

i.e there is real increase in probability of having anxiety in pediatric cancer patients regarding to education with increase in anxiety in secondary education.

*Relation of residence to anxiety;*

The table shows that in urban patient there were 41 patients out of 62 patients( 66.1%) had no anxiety, 16 patient ( 25.8%) had moderate anxiety and 5 patients( 8.5%) had severe anxiety

While in rural patients there were 22 patients out of 38 patients( 57.9%) had no anxiety, 11 patients ( 28.9%) had moderate anxiety and 5 patients ( 13.15%) had severe anxiety

*According p value =0.62> 0.05 ( not significant)*

i.e there is no real increase in probability of having anxiety in pediatric cancer patient regarding to residence.

### *Relation of duration of the disease to anxiety;*

The table shows that in disease with duration from (3 to 6) months there were 8 patients out of 13 patients( 61.5%) had no anxiety, 4 patient ( 30.8%) had moderate anxiety and 1 patient( 7.7%) had severe anxiety.

While in disease with duration from (6 to 30) months there were 52 patients out of 79 patients ( 65.8%) had no anxiety ,19 patients( 24.05%) had moderate anxiety and 8 patients ( 10.12%) had severe anxiety .

While in disease with duration >30 months there were 3 patients out of 8 patients ( 37.5%) had no anxiety ,4 patients( 50%) had moderate anxiety and 1 patient ( 12.5%) had severe anxiety .

*According p value =0.75 > 0.05( not significant)*

i.e there is no real increase in probability of having anxiety in pediatric cancer patient regarding to duration of the disease

### *Relation of past history of psychiatric disease to anxiety*

The table shows that in patients-with positive history there were 2 patients out of 7 patients( 28.6%) had moderate anxiety, 5 patients( 71.4%) had severe anxiety.

While in patients with negative history there were 63 patient of 93 patients ( 67.7%) had no anxiety, 25 patients ( 26.9%) had moderate anxiety and 5 patients( 5.4%) had severe anxiety .

*Accordingly p value <0.001 ( highly significant )*

i.e there is real increase in probability of having anxiety in pediatric cancer patients regarding to past history of psychiatric disease. with increase in anxiety in positive past history of psychiatric disease.

### *Relation of family psychiatric history to anxiety .*

The table shows that is in positive history there were 1 patient out of 9 patients ( 11.1%) had no anxiety, 1 patient ( 11.1%) had moderate anxiety and 7 patients ( 77.8%) had severe anxiety .

While in negative history there were 62 patients out of 91 patients ( 68.13%) had no anxiety, 26 patients ( 28.6%) had moderate anxiety, and 3 patients ( 3.3%) had severe anxiety .

*Accordingly  $p$  value  $<0.001$ ( highly significant )*

i.e there is real increase in probability of having anxiety in pediatric cancer patients regarding to family psychiatric history with increase in anxiety in positive family history of psychiatric disease.

*Relation of insight to illness to anxiety;*

The table shows that is in presence of insight to illness there were 14 patients out of 31 patients ( 45.2%) had no anxiety, 10 patients ( 32.25%) had moderate anxiety and 7 patients ( 22.6%) had severe anxiety.

While in absence of insight to illness there were 49 patients out of 69 patients ( 71.01%) had no anxiety, 17 patients ( 24.6%) had moderate anxiety and 3 patients ( 4.3%) had severe anxiety .

*Accordingly  $p$  value  $=0.007 < 0.05$  ( significant )*

i.e there is real increase in probability of having anxiety in pediatric cancer patient regarding to presence of insight to illness. with increase in anxiety in insighted children .

*Relation of religious believe to anxiety;*

The table shows that is in patients who said god is with us in our illness there were 63 patients out of 95 patients ( 66.3%) ( 7.4%) had severe anxiety

While in patients who said god is against us in my illness there were 2 patients out of 2 patients ( 100%) had severe anxiety



**While in patient who said god has no thing to do in our illness there were 2 patients out of 3 patients ( 66.7%) had moderate anxiety and 1 patient ( 33.3%) had severe anxiety**

***Accordingly p value <0.001( highly significant )***

**i.e there is real increase in probability of having anxiety in pediatric cancer patients regarding to religious believe. . with increase in anxiety in bad believes.**

### *Relation of social support to anxiety*

**The table shows that is in patients who received emotional support there were 10 patients out of 43 patients ( 23.25%) had no anxiety, 11 patients ( 52.6%) had moderate anxiety and 2 patients ( 4.6%) had severe anxiety**

**While in patient who received instrumental support there were 17 patients out of 25 patients( 68%) had no anxiety, 6 patients( 24%) had moderate anxiety and 2 patients( 8%) had severe anxiety**

**While in patient who received informational support there were 1 patient out of 4 patients ( 25%) had no anxiety, 3 patients( 75%) had moderate anxiety**

**While in patients who received emotional and instrumental support there were 10 patients out of 16 patients ( 62.5%) had no anxiety,4 patients ( 25%) had moderate anxiety and 2 patients( 12.5%) had severe anxiety**

**While in patients who received emotional and informational support there were 3 patients out of 7 patients( 42.8%) had no anxiety, 2 patients ( 28.6%) had moderate anxiety and 2 patients( 28.6%) had severe anxiety .**

**While in patients who received instrumental and informational support there were 2 patients out of 3 patients ( 66.7%) had no anxiety and 1 patient ( 33.3%) had moderate anxiety**

**While in patients who received no support there were 2 patients out of 2 patients( 100%) had severe anxiety.**

Accordingly  $p \text{ value} = 0.006 < 0.05$  ( significant )

i.e there is real increase in probability of having anxiety in pediatric cancer patient regarding to the type of social support received by the patients.  
 . with increase in anxiety in low supported children .

**Table ( 5 ) Association of patients characteristics, diagnosis and disease pr**

Depression						
		No		Mild		M
		Count	Col %	Count	Col %	Co
age group	10 to 14.5	31	50.8	3	16.7	
	14.5 to 18	30	49.2	15	83.3	
sex	male	37	60.7	8	44.4	
	female	24	39.3	10	55.6	
diagnosis	leukaemia	46	75.4	12	66.7	
	lymphoma	15	24.6	6	33.3	
eduction	obligatory	31	50.8	3	16.7	
	secondry	30	49.2	15	83.3	
residence	urban	39	63.9	12	66.7	
	rural	22	36.1	6	33.3	
duration of the disease	from 3 to 6 monthes	8	13.1	3	16.7	
	from 6 to 30 month	52	85.2	15	83.3	
	>30 month	1	1.6			
past history of psychiatry disease	positive					
	negative	61	100.0	18	100.0	1
family psychiatric history	positive	2	3.3			
	negative	59	96.7	18	100.0	1
insight to illness	yes	17	27.9	4	22.2	
	no	44	72.1	14	77.8	
religious beleive	god is w me in my illness	61	100.0	17	94.4	1
	god is against me w my illness					
	god has no thing to do w my illness			1	5.6	
social support	emotional	27	44.3	7	38.9	
	instrumental	17	27.9	4	22.2	
	informational	1	1.6	2	11.1	
	emotinal and instrumental	11	18.0	2	11.1	

	emotional and informational	4	6.6	2	11.1	
	instrumental and informational	1	1.6	1	5.6	
	none					

## Depression

**The table (5) shows the association of patient characteristic demographic data, diagnosis and disease predictors to depression.**

### *Relation of age group to depression*

The table shows that in patients aged from (10-14.5) years there were 31 patients out of 41 patients ( 75.6%) had no depression , 3 patients ( 7.3%) had mild depression, 4 patients ( 9.7%) had moderate depression and 3 patients ( 7.3%) had severe depression.

while in patients aged from(14.5 -18) years there were 30 patients out of 59 patients ( 50.8%) had no depression , 15 patients( 25.4%) had moderate depression and 14 patients( 23.7%) had severe depression.

*Accordingly p value =0.06 > 0.05 ( not significant )*

i.e there no real increase in probability of having depression in pediatric cancer patients regarding to age.

### *Relation of sex to depression*

The table shows that in male patients there were 37 patients out of 60 patients ( 61.7%) had no depression, 8 patients ( 13.3%) had moderate depression and 7patients( 11.7%) had severe depression

While in female patients there were 24 patients out of 40 patients ( 60%) had no depression, 10 patients( 25%) had mild depression ,4 patients ( 10%) had moderate depression and 2 patients( 5%) had severe depression

*Accordingly  $p$  value =0.63>0.05 (not significant)*

i.e. there is no real increase in probability of having depression in pediatric cancer patients regarding to sex .

### *Relation of diagnosis to depression*

the table shows that in patients with leukemia there were 46 patients out of 65 ( 70.8%) had no depression ,12 patients( 18.5%) had mild depression and 5 patients( 7.7%) had moderate depression and 2 patients ( 3.1%) had severe depression.

While in patients with lymphoma there were 15 patients out of 35 patients ( 42.3%) had no depression, 6 patients ( 17.1%) had mild depression, 7 patients ( 20%) had moderate depression , and 7 patients ( 20%) had severe depression

*Accordingly  $p$  value =0.005<0.05( highly significant )*

i.e. there is real increase probably of in having depression in pediatric cancer patients regarding to diagnosis with increase in depression with lymphoma .

### *Relation of Education to depression*

The table shows that in patients in obligatory education there were 31 patients out of 41 patients ( 75.6%) had no depression ,3 patients ( 7.3%) had mild depression ,4 patients( 9.7%) had moderate depression and 3 patients ( 7.3%) had severe depression .

While in patient in secondary education there were 30 patients out of 59 patients( 50.8%) had no depression ,15 patients( 25.4%) had mild depression ,8 patients( 13.5%) had moderate depression and 6 patients ( 10.2%) had severe depression

*accordingly  $p$  value =0.006>0.05( not significant )*

**i.e. there is real increase in probability of having depression in pediatric cancer patient regarding to Education**

### *Relation of residence to depression*

**the table shows that in urban patients there were 39 patients out of 62 patients( 62.9%) had no depression ,12 patients ( 19.3%) had mild depression ,4 patients( 6.4%) had moderate depression and 7 patients( 11.3%) had severe depression .**

**while in rural patients there were 22 patients out of 38 patients( 57.9%) had no depression, 6 patients( 15.8%) had mild depression, 8 patients ( 21.05%) had moderate depression and 2 patients( 5.3%) had severe depression**

***Accordingly  $p$  value =0.15>0.05(not significant )***

**i.e there is no real increase in probability of having depression in Pediatric cancer patient regarding to residence .**

### *Relation of duration of disease to depression*

**The table shows that in patients with duration of disease from (3 -6) months there were 8 patients out of 13 patients( 61.8%) had no depression ,3 patients( 23.1%) had mild depression and 2 patients ( 15.4%) had severe depression**

**While in patients with duration of Disease from (6-30) months there were 52 patients out of 79 patients ( 65.8%) had no depression ,15 patients ( 19%) had mild depression and 2 patients( 2.5%) had severe depression .**

**While in patients with duration of Disease >30 months there were 1 patient out of 8 patients ( 12.5%) had no depression ,6 patients( 75%) had moderate depression and 1patient ( 12.5%) had severe depression .**

***Accordingly  $p$  value <0.001<0.05( highly significant)***

**i.e. there is real increase in probability of having depression in pediatric cancer patient regarding to duration of disease with increase in depression with early and late duration of disease ,**

### *Relation of past history of psychiatric disease to depression*

The table shows that in patients with positive history there were 7 patients out of 7 patients ( 100%) had severe depression.

While in patients with negative history there were 61 patients out of 93 patients ( 65.6%) had no depression ,18 patients ( 19.3%) had mild depression ,12 patients ( 12.9%) moderate depression and 2 patients ( 2.1%) had severe depression .

*Accordingly  $p$  value <0.001 (highly significant )*

i.e. there is real increase in probability of having depression in pediatric cancer patient regarding to past history of psychiatric disease with increase in depression with positive past history of psychiatric disease .

### *Relation of family history of psychiatric disease to depression*

The table shows that in patients with positive family history of psychiatric disease there were 2 patients out of 9 patients ( 22.2%) had no depression and 7 patients ( 77.8%) had severe depression

While in patients with negative family psychiatric history there were 59 patients out of 91 patients ( 64.8%) had no depression ,18 patients ( 19.8%) had mild depression, 12 patients ( 13.2%) had moderate depression and 2 patients ( 2.2%) had severe depression .

*Accordingly  $p$  value <0.001 (highly significant )*

i.e. there is real increase in probability of having depression in pediatric cancer patients regarding to presence of family psychiatric history with increase in depression with positive family psychiatric history .

### *Relation of insight to illness to depression*

The table shows that in patients with insight to their illness there were 17 patients out of 31 patients ( 54.8%) had no depression , 4 patients ( 12.9%)

had mild depression ,4 patients ( 12.9%) had moderate depression and 6 patients( 19.3%) had severe depression .

while in patients with no insight to their illness there were 44 patients out of 67 patients ( 65.7%) had no depression ,14 patients( 21%) had mild depression , 8 patients( 11.9%) had moderate depression and 3 patients ( 4.5%) had severe depression .

*Accordingly  $p$  value =0,1>0.05( not significant )*

i.e. there is no real increase in probability of having depression in pediatric cancer patients regarding to insight to illness.

### *Relation of religious believe to depression*

The table shows that in patients who said our god is with us in our illness there were 61 patients out of 95 patients ( 64.2%) had no depression ,17 patients ( 18%) had mild depression ,12 patients( 12.6%) had moderate depression and 5 patients( 5.3%) had severe depression .

While in patients who said our god is against us in our illness there were 2 patients out of 2 patients ( 100%) had severe depression

While in patients who said our god has no thing to do in our illness there were 1 patients out of 3 patients ( 33.3%) had mild depression and 2 patients ( 66.7%) had severe depression.

*Accordingly  $p$  value <0.001 < 0.05(significant)*

i.e. there is real increase in probability of having depression in pediatric cancer patient regarding to religious believe with increase in depression with bad religious believes .

### *Relation of social support to depression*

The table shows hat in patients who had emotional support there were 27patients out of 43 patients ( 62.8%) had no depression, 7 patients( 16.3%) had mild depression, 6 patients ( 13.9%) had moderate depression and 3 patients ( 7%) had severe depression.

**While in patients who had instrumental support there were 17 patients out of 25 patients ( 68%) had no depression, 4 patients( 16%) had mild depression, 2 patients( 8%) had moderate depression and 2 patients ( 8%) had severe depression.**

**While in patients who had informational support there were 1 patient out of 4 patients ( 25%) had no depression, 2 patients ( 50%) had mild depression and 1 patient ( 25%) had severe depression.**

**While in patients who had emotional and instrumental support there were 11 patients out of 16 patients( 68.7%) had no depression, 2 patients ( 12.5%) had mild depression, 2 patients( 12.5%) had moderate depression and 1 patient( 6.25%) had severe depression.**

**While in patients who had emotional and informational support there were 3 patients out of 7 patients ( 42.8%) had no depression, 2 patients ( 28.6%) had moderate depression and 2 patients ( 28.6%) had severe depression.**

**While in patients who had instrumental and informational support there were 1 patient out of 3 patients( 33.3%) had no depression, 1 patient( 33.3%) had mild and 1 patient( 33.3%) had moderate depression**

**While in patients who had no support there were 2 patients out of 2 patients( 100%) had severe depression**

***Accordingly  $p\text{ value} = 0.004 < 0.05$  (highly significant)***

**i.e. there is real increase in probability of having depression in pediatric cancer patients regarding to social support with increase in depression with low supported children**



Aggression						
		no aggression		indirect		agres
		Count	Col %	Count	Col %	Cou
age group	10 to 14.5	35	42.17	3	30	2
	14.5 to 18	48	57.83	7	70	2
sex	male	47	56.63	7	70	3
	female	36	43.37	3	30	1
diagnosis	leukaemia	60	72.29	2	20	2
	lymphoma	23	27.71	8	80	2
eductation	obligatory	35	42.17	3	30	2
	secondry	48	57.83	7	70	2
residence	urban	50	60.24	8	80	1
	rural	33	39.76	2	20	3
socioeconomic stander	below moderat	46	55.42	5	50	3
	moderate	26	31.33	2	20	
	high	11	13.25	3	30	1
duration of the disease	from 3 to 6 monthes	12	14.46	1	10	
	from 6 to 30 month	66	79.52	6	60	4
	>30 month	5	6.02	3	30	
past history of psyichatry disease	positive	6	7.23	1	10	
	negative	77	92.77	9	90	4
family psychatric history	positive	8	9.64			1

	negative	75	90.36	10	100	3
insight to illness	yes	23	27.71	5	50	1
	no	60	72.29	5	50	3
religious beleive	god is w me in my illness	78	93.98	10	100	4
	god is against me w my illness	2	2.41			
	god has no thing to do w my illness	3	3.61			
social support	emotional	36	43.37	2	20	2
	instrumental	24	28.92	1	10	
	informational	3	3.61	1	10	
	emotinal and instrumental	11	13.25	4	40	1
	emotinal and informatinal	4	4.82	2	20	1
	instrumental and informatinal	3	3.61			
	none	2	2.41			

aggression

**The table (6) shows the association of aggression to patient characteristic demographic date, diagnosis and disease predictors**

*Relation of age group to aggression*

The table shows that in patient aged from (10-14.5) years there were 35patients out of 41patients ( 85.4%) had no aggression, 3 patients( 7.3%) had indirect aggression, 2 patient( 4.9%) had aggressive aggression and 1 patient( 2.4%) had direct aggression .

while in patients aged from(14.5 -18) years there were 48 patients out of 59 patients( 81.3%) had no aggression, 7 patients ( 11.9%) had indirect aggression, 2 patients ( 3.4%) had aggressive aggression and 2 patients ( 3.4%) had direct aggression .

*Accordingly  $p$  value =0.68> 0.05( not significant )*

i.e there is no real increase in probability of having *aggression* in pediatric cancer patient regarding to age.

### *Relation of aggression to sex*

The table shows that in male patients there were 47 patients out of 60 ( 78.3%) had no *aggression*, 7 patients( 11.7%) had indirect *aggression*, 3 patients ( 5%) had aggressive *aggression* and 3 patient( 5%) were direct aggression .

While in female patients there were 36 patients out of 40 patients( 90%) had no aggression, 3 patients ( 7.5%) had indirect aggression and 1 patient ( 2.5%) had aggressive aggression .

*Accordingly p value = 0.36 > 0.05 (not significant)*

i.e. there is no real increase in probability of having *aggression* in pediatric cancer patient regarding to sex .

### *Relation of aggression to diagnosis*

the table shows that in patients with leukemia there were 60 patients out of 65 patient ( 92.3%) had no aggression , 2 patients ( 3.1%) had indirect aggression, 2 patients ( 3.1%) had aggressive aggression and 1 patient( 1.5%) had direct aggression .

While in patients with lymphoma there were 23 patients out of 35 patients( 65.7%) had no aggression, 8 patients( 22.8%) had indirect aggression, 2 patients ( 15.7%) had aggressive aggression and 2 patient ( 5.7%) had direct aggression .

*Accordingly p value = 0.006 < 0.05 (significant)*

i.e. there is real increase in probability of having *aggression* in pediatric cancer patients regarding to diagnosis with increase in aggression with lymphoma .

### *Relation of aggression to Education*

The table shows that in patients in obligatory education there were 35 patients out of 41 patients( 85.4%) had no *aggression*, 3 patients ( 7.3%) had indirect *aggression*, 2 patient ( 4.9%) had aggressive *aggression* and 2 patient( 4.9%) had direct aggression

While in patient in secondary education there were 48 patients out of 59 patients ( 81.3%) had no aggression , 7 patients( 11.9%) had indirect aggression , 2 patients( 3.4%) had aggressive aggression and 2 patients ( 3.4%) had direct aggression .

*Accordingly  $p$  value =0.86>0.05( not significant )*

i.e. there is no real increase in probability of having aggression in pediatric cancer patients regarding to education

### *Relation of aggression to residence*

the table shows that in urban patients there were 50 patients out of 62 patients ( 80.6%) had no aggression, 8 patients ( 12.9%) had indirect aggression, 1 patient( 1.6%) had aggressive aggression and 3 patients ( 4.8%) had direct aggression .

while in rural patients there were 33 patients out of 38 patients ( 86.8%) had no aggression, 2 patients ( 5.3%) had indirect aggression and 3 patients ( 7.9%) had aggressive aggression

*Accordingly  $p$  value =0.18>0.05(not significant )*

i.e. there is no real increase in probability of having aggression in pediatric cancer patients regarding to residence.

### *Relation of aggression to socio economic stander*

The table shows that in patients with socio economic stander below moderate there were 46 patients out of 55 patients ( 83.6%) had no aggression, 5 patients( 9.1%) had indirect aggression, 3 patients ( 5.4%) had aggressive aggression and 1 patient ( 1.8%) had direct aggression .

While in patients with moderate socio economic stander there were 26 patients out of 30 patients ( 86.7%) had no aggression, 2 patients ( 6.7%) had indirect aggression, 2 patients ( 6.7%) had direct aggression .

While in patient with high socio economic stander there were 11 patients out of 15 patients ( 73.3%) had no aggression, 3 patients ( 20%) had indirect aggression and 1 patient( 6.7%) had direct aggression.

***Accordingly  $p$  value =0.43>0.05 (not significant)***

**i.e. there is no real increase in probability of having aggression in Pediatric cancer patients regarding to socio economic stander.**

### ***Relation of aggression to duration of disease***

**The table shows that in patients with duration of disease from (3 -6) months there were 12 patients out of 13 patients( 92.3%) had no aggression, 1 patient ( 7.7%) had indirect aggression,**

**While in patients with duration of disease from (6-30) months there were 66 patients out of 79 patients ( 83.5%) had no aggression, 6 patients ( 7.6%) had indirect aggression, 4 patients( 5.1%) had aggressive aggression and 3 patients( 3.8%) had direct aggression.**

**While in patients with duration of disease>30 months there were 5 patients out of 8 patients ( 62.5%) had no aggression and 3 patients ( 37.5%) had indirect aggression**

***Accordingly  $p$  value =0.18 > 0.05 (not significant)***

**i.e. there is no real increase in probability of having aggression in Pediatric cancer patients regarding to duration of disease.**

### ***Relation of aggression to past history of psychiatric disease***

**The table shows that in patients with positive history there were 6 patients out of 7 patients (85.7%) had no aggression and 1 patient ( 14.3%) had indirect aggression**

**While in patients with negative history there were 77 patients out of 93 patients ( 82.8%) had no aggression, 9 patients( 9.7%) had indirect aggression, 4 patients ( 4.3%) had aggressive aggression and 3 patients ( 3.2%) had direct aggression.**

***Accordingly  $p$  value=0.88>0.05 (not significant )***

i.e. there no is real increase in probability of having *aggression* in pediatric cancer patients regarding to presence of past history of psychiatric disease.

### *Relation of family psychiatric history to aggression.*

The table shows that in patients with positive family psychiatric history there were 8 patients out of 9 patients ( 88.9%) had no aggression and 1 patient ( 11.1%) had aggressive aggression

While in patients with negative family psychiatric history there were 75 patients out of 91 patients ( 82.8%) had no aggression, 10 patients( 11%) had indirect aggression, 3 patients( 3.3%) had aggressive aggression and 3 patient( 3.3%) had direct aggression.

*Accordingly p value =0.46 >0.05 ( not significant )*

i.e. there is no real increase in probability of having aggression in pediatric cancer patients regarding to presence of family psychiatric history

### *Relation of aggression to insight to illness.*

The table shows that in patients with insight to their illness there were 23 patients out of 31 patients ( 74.2%) had no aggression, 5 patients( 16.1%) had indirect aggression, 1 patient( 3.2%) had aggressive aggression and 2 patients( 6.4%) had direct aggression.

while in patients with no insight to their illness there were 60 patients out of 69 patients ( 86.9%) had no aggression, 5 patients( 7.2%) had indirect aggression, 3 patients( 4.3%) patient had aggressive aggression and 1 patient ( 1.4%) had direct aggression

*Accordingly p value =0,26>0.05(not significant )*

i.e. there is no real increase in probability of having *aggression* in pediatric cancer patients regarding to insight to illness .

### *Relation of aggression to religious believe*

The table shows that in patient who said our god is with us in our illness there were 78 out of 95 patients ( 82.1%) had no aggression, 10 patients ( 10.5%) had indirect aggression, 4 patients( 4.2%) had aggressive aggression and 3 patient ( 3.1%) were direct aggression.

while in patients who said our god is against us in our illness there were 2 patients out of 2 patients( 100%) had no aggression

While in patients who said our god has no thing to do in our illness there were 3 patients out of 3 patients ( 100%) had no aggression .

*Accordingly  $p$  value =0.98> 0.05(not significant )*

i.e. there is no real increase in probability of having *aggression* in pediatric cancer patients regarding to religious believe .

### *Relation of aggression to social support*

The table shows that in patients who had emotional support there were 36patients out of 43 patients( 83.7%) had no aggression, 2 patients( 4.6%) had indirect aggression, 2 patients( 4.6%) had aggressive aggression, and 3 patients( 7%) had direct aggression

While in patients who had instrumental support there were 24 patients out of 25 patients( 96%) had no aggression, 1 patient( 4%) had indirect aggression

While in patients who had information of support there were3 patients out of 4 patients ( 75%) had no aggression, and 1 patient( 25%) had indirect aggression .

While in patients who had emotional and instrumental support there were 11 patients out of 16 patients( 68.75%) had no aggression, 4 patients ( 25%) had indirect aggression , and 1 patient ( 6.25%) had aggressive aggression

While in patients who had emotional and informational support there were 4 patients out of 7 patients ( 57.1%) had no aggression, 2 patients ( 28.6%) had indirect aggression and 1 patient ( 14.3%) had aggressive aggression

While in patients who had instrumental and informational support there were 3 patients out of 3 patients ( 100%) had no aggression .

While in patients who had no support there were 2 patients out of 2 patients ( 100%) had no aggression

*Accordingly p value =0.41> 0.05(not significant )*

i.e. there is no real increase in probability of having aggression in pediatric cancer patients regarding to social support

**Table ( 7) Association of patients characteristics, diagnosis and disease predict behavior disorder**

		POSITIVE	
		Count	Col %
age group	10 to 14.5	6	31.6
	14.5 to 18	13	68.4
sex	male	17	89.5
	female	2	10.5
diagnosis	leukaemia	7	36.8
	lymphoma	12	63.2
eductation	obligatory	6	31.6
	secondry	13	68.4



residence	urban	14	73.7
	rural	5	26.3
duration of the disease	from 3 to 6 monthes	3	15.8
	from 6 to 30 month	12	63.2
	>30 month	4	21.1
past history of psychatry disease	positive	6	31.6
	negative	13	68.4
family psychatric history	positive	6	31.6
	negative	13	68.4
insight to illness	yes	11	57.9
	no	8	42.1
religious beleive	god is w me in my illness	15	78.9
	god is against me w my illness	2	10.5
	god has no thing to do w my illness	2	10.5
social support	emotional	10	52.6
	instrumental	5	26.3
	informational	2	10.5
	emotinal and instrumental		
	emotinal and informational		
	instrumental and informational		
	none	2	10.5

Behavior disorders.

**The table (7) shows the association of patient characteristic demographic date and disease predictors to behavior disorders.**

*Relation of age group to behavior disorders*

The table shows that in patient aged from (10 -14.5) years there were 6 patients out of 41 patient( 14.9%) had positive behavior disorders, 35 patients ( 85.4%) had negative behavior disorders.

while in patients aged from(14.5 -18) years there were 13 patients out of 59 patients ( 22%) had positive behavior disorders,46 patients( 78%) had negative behavior disorders.

*Accordingly  $p$  value =0.35 > 0.05 ( not significant )*

i.e. there no real increase in having probability of having behavior disorders in pediatric cancer patients regarding to age.

#### *Relation of sex to behavior disorders*

The table shows hat in the male patients there were 17 patients out of 60 patients ( 28.3%) had positive behavior disorders, and 43 patients( 71.7%) had negative behavior disorders .

While in female patients there were 2 patients out of 40 patients( 5%) had positive behavior disorders and 38 patients( 95%) had negative behavior disorders .

*Accordingly  $p$  value =0.004 < 0.05 ( significant )*

i.e. there real increase in having probability of having behavior disorders in pediatric cancer patients regarding to sex with increase in behavior disorders in male patients .

#### *Relation of diagnosis to behavior disorders*

The table shows that in patients with leukemia there were 7 patients out of 65 patients( 10.8%) had positive behavior disorders and 58 patients ( 89.2%) had negative behavior disorders .

While in patients with lymphoma there were 12 patients out of 35 ( 34.3%) had positive behavior disorders and 23 patients( 65.7%) had negative behavior disorders .

*Accordingly  $p$  value =0.004 <0.05(significant ).*

i.e. there is real increase in having probability of having behavior disorders in pediatric patient regarding to diagnosis with increase in behavior disorders lymphoma .

### *Relation of Education to Behavior disorder*

**The table shows that in patients in obligatory education there were 6 out of 41 patients( 14.6%) had positive behavior disorders and 35 patients ( 85.4%) had negative behavior disorders .**

**While in patient in secondary education there were 13 patients out of 59 patients( 22%) had positive behavior disorders and 46 patients ( 78%) had negative behavior disorders .**

***Accordingly  $p\text{ value} = 0,35 > 0.05$ (not significant )***

**i.e. there is no real increase in probability of having behavior disorders in pediatric cancer patients regarding to education .**

### *Relation of residence to behavior disorders*

**The table shows that in urban patient there were 14 patients out of 62 patients ( 22.6%) had positive behavior disorders and 48 patients( 77.4%) had negative behavior disorders .**

**While in rural patients there were 5 patients out of 38 patients( 13.2%) had positive behavior disorders and 33 patients ( 86.4%) had negative behavior disorders .**

***Accordingly  $p\text{ value} = 0.24 > 0.05$  ( not significant)***

**There is no real increase in probability of having behavior disorders in pediatric cancer patients regarding to residence.**

### *Relation of duration of the disease to behavior disorders*

**The table shows that in patients with duration of disease from ( 3 to 6 ) months there were 3 patients out of 13 patients( 23.3%) had positive behavior disorders and 10 patients( 76.3%) had negative behavior disorders.**

**While in patients with duration of disease from ( 6 to 30) months there were 12 patients out of 79 patients( 15.2%) had positive behavior disorders and 67 patients ( 84.8%) had negative behavior disorders.**

**While in patients with duration of disease >30 months there were 4 patient out of 8 patient( 50%) had positive behavior disorders and 4 patient ( 50%) had negative behavior disorders.**

***Accordingly  $p$  value =0.05 ( not significant)***

**i.e there is no real increase in probability of having behavior disorders in pediatric cancer patients regarding to duration of the disease with increase in behavior disorders in late duration of disease .**

### *Relation of past history of psychiatric disease to behavior disorders*

**The table shows that is in patients with positive history there were 6 patients out of 7 patients( 85.7%) had positive behavior disorders and 1 patient( 14.3%) had negative behavior disorders.**

**While in patients with negative history there were 13 patients of 93 patient ( 14%) had positive behavior disorders and 80 patients ( 86%) had negative behavior disorders.**

***Accordingly  $p$  value <0.001 ( highly significant )***

**i.e there is real increase in probability of having behavior disorders in pediatric cancer patients regarding to past history of psychiatric disease. with increase in behavior disorders in positive past history of psychiatric disease.**

### *Relation of family psychiatric history to behavior disorders*

**The table shows that is in patients with positive family history there were 6 patients out of 9 patients( 66.7%) had positive behavior disorders and 3 patient( 33.3%) had negative behavior disorders.**

While in patients with negative family history there were 13 patients out of 91 patients( 14%) had positive behavior disorders and 78 patients ( 86%) had negative behavior disorders.

*Accordingly  $p$  value  $<0.001$ ( highly significant )*

i.e there is real increase in probability of having behavior disorders in pediatric cancer patients regarding to family psychiatric history with increase in behavior disorders in positive family psychiatric history .

### *Relation of insight to illness to behavior disorders*

The table shows that is in presence of insight to illness there were 11 patients out of 31 patients ( 35.5%) had positive behavior disorders and 20 patients( 64.5%) had negative behavior disorders.

While in absence of insight to illness there were 8 patient out of 69 patients( 11.6%) had positive behavior disorders and 61 patients ( 88.4%) had negative behavior disorders.

*Accordingly  $p$  value  $=0.005 < 0.05$  ( significant )*

i.e. there is real increase in probability of having behavior disorders in pediatric cancer patients regarding to presence of insight to illness with increase in behavior disorders in insighted children.

### *Relation of religious believe to behavior disorders*

The table shows that is in patient who said god is with us in our illness there were 15 patients out of 95 patients ( 15.8%) had positive behavior disorders and 80 patients( 84.2%) had negative behavior disorders.

While in patients who said god is against us in our illness there were 2 patients out of 2 patients ( 100%) had positive behavior disorders

While in patient who said god has no thing to do in our illness there were 2 patients and of 3 patients ( 66.7%) had positive behavior disorders and 1 patient ( 33.3%) had negative behavior disorders.

*Accordingly  $p$  value  $<0.001$  ( highly significant )*

**i.e. there is real increase in probability of having behavior disorders in pediatric cancer patients regarding to religious believe with increase in behavior disorders in bad religious believes.**

### *Relation of social support to behavior disorders*

**The table shows that in patients who received emotional support there were 10 patients out of 43 patients( 23.2%) had positive behavior disorders and 33 patients( 76.7%) had negative behavior disorders.**

**While in patient who received instrumental support there were 5 patients out of 25 patients( 20%) had positive behavior disorders and 20 patients ( 80%) had negative behavior disorders.**

**While in patient who received informational support there were 2patients out of 4 patients ( 50%) had positive behavior disorders and 2 patients ( 50%) had negative behavior disorders.**

**While in patients who received emotional and instrumental support there were 16 patients out of 16 patients( 100%) had negative behavior disorders .**

**While in patients who received emotional and informational support there were 7 patients out of 7 patients( 100%) had negative behavior disorders.**

**While in patients who received instrumental and informational support there were 3patients out of 3 patients( 100%) had negative behavior disorders.**

**While in patients who had no support there were 2 patients out of 2 patients( 100%) had positive behavior disorders .**

***Accordingly  $p\text{ value} = 0.007 < 0.05$  ( significant )***

**i.e there is real increase in probability of having behavior disorders in pediatric cancer patients regarding to the types of social support received by the patients . with increase in behavior disorders in low supported children.**

coping process										
		active	cognitive	active	behavioural	avoidance		active	&	active
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count
age group	10 to 14.5	19	55.9	7	38.9	4	33.3	5	33.3	3
	14.5 to 18	15	44.1	11	61.1	8	66.7	10	66.7	9

sex	male	20	58.8	10	55.6	8	66.7	13	86.7	5
	female	14	41.2	8	44.4	4	33.3	2	13.3	7
diagnosis	leukaemia	28	82.4	9	50.0	10	83.3	6	40.0	7
	lymphoma	6	17.6	9	50.0	2	16.7	9	60.0	5
education	obligatory	19	55.9	7	38.9	4	33.3	5	33.3	3
	secondary	15	44.1	11	61.1	8	66.7	10	66.7	9
residence	urban	25	73.5	14	77.8	7	58.3	6	40.0	6
	rural	9	26.5	4	22.2	5	41.7	9	60.0	6
duration of the disease	from 3 to 6 months	5	14.7	2	11.1	2	16.7	1	6.7	2
	from 6 to 30 month	27	79.4	14	77.8	9	75.0	12	80.0	10
	>30 month	2	5.9	2	11.1	1	8.3	2	13.3	
past history of psychiatry disease	positive	1	2.9	1	5.6	1	8.3	3	20.0	
	negative	33	97.1	17	94.4	11	91.7	12	80.0	12
family psychiatric history	positive	1	2.9			3	25.0	4	26.7	
	negative	33	97.1	18	100.0	9	75.0	11	73.3	12
insight to illness	yes	10	29.4	7	38.9	2	16.7	6	40.0	2
	no	24	70.6	11	61.1	10	83.3	9	60.0	10
religious beleive	god is w me in my illness	33	97.1	18	100.0	11	91.7	13	86.7	12
	god is against me w my illness							1	6.7	
	god has no thing to do w my illness	1	2.9			1	8.3	1	6.7	

## Coping process

**The table (8) shows the association of coping process to patients characteristic demographic data and disease predictor**



### *Relation of coping process to age group:*

The table shows that in patients aged from (10-14.5) years there were 19 patients out of 41 patients ( 46.3%) used active cognitive coping, 7 patients ( 17%) used active behavioral coping, 4 patients ( 9.7%) used avoidance, 5 patients ( 12.2%) used active cognitive and active behavioral, 3 patients ( 7.3%) used active cognitive and avoidance, and 3 patients ( 7.3%) used active behavioral and avoidance .

while in patients aged from (14.5-18) years there were 15 patients (out of 59 patients ( 25.4%) used active cognitive coping, 11 patients ( 18.6%) used active behavioral coping, 8 patients ( 13.5%) used avoidance, 10 patients ( 16.9%) used active cognitive and active behavioral, 9 patients ( 15.2%) used active cognitive and avoidance, and 6 patients( 10.2%) used active behavioral and avoidance.

*Accordingly  $p$  value = 0.38 > 0.05 ( not significant )*

i.e. there is no real correlation between the coping and the age group.

### *Relation of coping process to sex*

The table show that in male patients there were 20 patients out of 60 patients ( 33.3%) used active cognitive coping, 10 patients ( 16.7%) used active behavioral coping, 8 patients( 13.3%) used avoidance, 13 patients ( 21.7%) used active cognitive and active behavioral, 5 patients ( 8.3%) used active cognitive and avoidance and 4 patients( 6.7%) used active behavioral and avoidance.

while in female patients there were 14 patients out of 40 patients( 35%) used active cognitive coping, 10 patients( 25%) used active behavioral coping, 8 patients ( 20%) used avoidance, 13 patients( 32.5%) used active cognitive and active behavioral, 5 patients( 12.5%) used active cognitive and avoidance and 4 patients ( 10%) used active behavioral and avoidance.

*Accordingly  $p$  value = 0.19 > 0.05 ( not significant)*

i.e. there is no real correlation between the coping and the sex of the patients .

### *Relation of diagnosis to coping process :*

The table show that in patients with leukemia there were 28 patients out of 65 patients ( 43.1%) used active cognitive coping, 9 patients( 13.2%) used active behavioral coping, 10 patients ( 15.4%) used avoidance, 6 patients ( 9.2%) used active cognitive and active behavioral, 7 patients ( 10.8%) used active cognitive and avoidance, 5 patients ( 7.7%) used active behavioral and avoidance.

while in patients with lymphoma there were 6 patients out of 35 patients ( 17.1%) used active cognitive coping, 9 patients ( 25.7%) used active behavioral coping, 2 patients ( 5.7%) used avoidance, 9 patients ( 25.7%) used active cognitive and active behavioral, 5 patients( 14.3%) used active cognitive and avoidance and 4 patients ( 11.4%) used active behavioral and avoidance .

*Accordingly  $p$  value =0.03< 0.05 ( significant)*

i.e. there is real correlation between the coping and the type of malignancies with increase in usage of coping methods with leukemia.

### *Relation of coping process to education*

The table show that in patients in obligatory education there were 19 patients out of 41 patients ( 36.3%) used active cognitive coping, 7 patients ( 17.1%) used active behavioral coping, 2 patients ( 4.9%) used avoidance, 9 patients ( 21.9%) used active cognitive and active behavioral, 5 patients ( 12.2%) used active cognitive and avoidance and 4 patients( 9.7%) used active behavioral and avoidance.

while in patients in secondary education there were 15 patients out of 59 patients ( 25.4%) used active cognitive coping, 11 patients ( 18.6%) used active behavioral coping, 8 patients( 13.5%) used avoidance, 10 patients ( 16.9%) used active cognitive and active behavioral, 9 patients( 15.2%) used active cognitive and avoidance and 6 patients ( 10.2%) used active behavioral and avoidance

*Accordingly  $p$  value =0.38> 0.05 ( not significant).*

i.e. there is no real correlation between the coping and the education.

### *Relation of coping process to residence*

The table show that in urban patients there were 25 patients out of 62 patients ( 40.3%) used active cognitive coping, 14 patients ( 22.6%) used active behavioral coping, 7 patients ( 11.3%) used avoidance, 6 patients ( 9.7%) used active cognitive and active behavioral, 5 patients ( 8.1%) used active cognitive and avoidance and 4 patients ( 6.4%) used active behavioral and avoidance.

while in rural patients there were 9 patients out of 38 patients ( 23.7%) used active cognitive coping, 4 patients( 10.5%) used active behavioral coping, 5 patients( 13.15%) used avoidance, 9 patients ( 23.7%) used active cognitive and active behavioral, 6 patients ( 15.8%) used active cognitive and avoidance and 5 patients( 13.15%) used active behavioral and avoidance

*Accordingly  $p$  value = 0.11 > 0.05 ( not significant)*

i.e. there is no real correlation between the coping and the residence.

*Relation of coping process to duration of the disease*

The table show that in patients with duration of the disease from (3-6) months there were 5 patients out of 13 patients ( 38.5%) used active cognitive coping, 2 patients ( 15.4%) used active behavioral coping, 2 patients ( 15.4%) used avoidance, 1 patient( 7.7%) used active cognitive and active behavioral, 2 patients( 15.4%) used active cognitive and avoidance and 1 patient ( 7.7%) used active behavioral and avoidance.

while in patients with duration of the disease from (6-30) months there were 27 patients out of 79 patients ( 34.2%) used active cognitive coping, 14 patients ( 17.7%) used active behavioral coping, 9 patients ( 11.4%) used avoidance , 12 patients ( 15.2%) used active cognitive and active behavioral, 10 patients ( 12.6%) used active cognitive and avoidance and 7 patients ( 8.9%) used active behavioral and avoidance

while in patients with duration of the disease >30 months there were 2 patients out of 8 patients ( 25%) used active cognitive coping, 2 patients ( 25%) used active behavioral coping, 1 patient( 12.5%) used avoidance, 2 patients ( 25%) used active cognitive and active behavioral and 1 patients ( 12.5%) used active behavioral and avoidance.

***Accordingly  $p$  value = 0.98 > 0.05 ( not significant)***

**i.e. there is no real correlation between the coping and the duration of the disease .**

### *Relation of coping process to past history of psychiatric disease*

**The table shows that in patients with positive history of psychiatric disease there were 1 patient out of 7 patients ( 14.3%) used active cognitive coping, 1 patient ( 14.3%) used active behavioral coping, 1 patient ( 14.3%) used avoidance, 3 patients ( 42.8%) used active cognitive and active behavioral and 1 patient ( 14.3%) used active behavioral and avoidance .**

**while in patients with negative history of psychiatric disease there were 33 patients out of 93 patients ( 35.5%) used active cognitive coping, 18 patients ( 19.3%) used active behavioral coping, 9 patients ( 9.7%) used avoidance, 11 patients ( 11.8%) used active cognitive and active behavioral, 12 patients ( 12.9%) used active cognitive and avoidance and 8 patients ( 8.6%) used active behavioral and avoidance .**

***Accordingly  $p$  value = 0.31 > 0.05 ( not significant )***

**i.e. there is no real correlation between the coping and the past history of psychiatric disease .**

### *Relation of coping process to family psychiatric history*

**The table show that in patients with positive family history of psychiatric disease there were 1 patient out of 9 patients ( 11.1%) used active cognitive coping, 3 patients ( 33.3%) used avoidance, 4 patients ( 44.4%) used active cognitive and active behavioral, 1 patient ( 11.1%) used active cognitive and 1 patient ( 11.1%) used active behavioral and avoidance .**

**while in patients with negative family history of psychiatric disease there were 33 patients out of 91 patients ( 36.3%) used active cognitive coping, 18 patients ( 19.8%) used active behavioral coping, 9 patients ( 9.9%) used avoidance, 11 patients ( 12.1%) used active cognitive and active behavioral, 12 patients ( 13.2%) used active cognitive and avoidance and 8 patients ( 8.8%) used active behavioral and avoidance .**

***Accordingly  $p$  value = 0.02 < 0.05 ( significant )***

**i.e. there is real correlation between the coping and the family psychiatric history . with increase in usage of coping methods in negative family psychiatric history.**

*Relation of coping process to religious believes.*

**The table show that in patients who said our god is with us in our illness there were 33 patients out of 95 patients ( 34.7%) used active cognitive coping, 18 patients ( 18.9%) used active behavioral coping, 11patients ( 11.6%) used avoidance, 13 patients ( 13.7%) used active cognitive and active behavioral, 12 patients( 12.6%) used active cognitive and avoidance, 8 patients( 8.4%) used active behavioral and avoidance.**

**while in patients who said our god is against us in our illness there were 1patient out of 2 patients ( 50%) used avoidance and 1 patients ( 50%) used active behavioral and avoidance .**

**while in patient who said our god has no thing to do in our illness there were 1 patient( 50%) used active cognitive coping, and 1 patient ( 50%) used active behavioral coping.**

***Accordingly  $p$  value = 0.43 > 0.05 ( not significant)***

**i.e. there is no real correlation between the coping and the religious believes .**

*Relation of coping process to insight to illness :*

**The table show that in patients who had insight to their illness there were 10 patients out of 31 patients ( 32.25%) used active cognitive coping, 7 patients( 22.6%) used active behavioral coping, 2patients ( 6.4%) used avoidance, 6patients ( 19.3%) used active cognitive and active behavioral, 2 patients ( 6.4%) used active cognitive and avoidance and 4 patients ( 12.9%) used active behavioral and avoidance .**

**while in patients who had no insight to their illness there were 24patients out of 69 patients ( 34.8%) used active cognitive coping, 11 patients( 15.9%)**

used active behavioral coping, 10 patients (14.5%) used avoidance, 9 patients (13%) used active behavioral and active cognitive, 10 patients (14.5%) used active cognitive and avoidance and 5 patients (7.25%) used active behavioral and avoidance.

*Accordingly  $p$  value = 0.52 > 0.05 ( not significant )*

i.e. there is no real correlation between the coping and the insight to illness .

<b>socioeconomic stander</b>				
		<b>below moderat</b>		<b>moderate</b>
		<b>Count</b>	<b>Col %</b>	<b>Count</b>
<b>insight to illness</b>	<b>yes</b>	<b>13</b>	<b>23.6</b>	<b>13</b>
	<b>no</b>	<b>42</b>	<b>76.4</b>	<b>17</b>
<b>religious beleive</b>	<b>god is w me in my illness</b>	<b>53</b>	<b>96.4</b>	<b>27</b>
	<b>god is against me w my illness</b>	<b>1</b>	<b>1.8</b>	<b>1</b>
	<b>god has no thing to do w my illness</b>	<b>1</b>	<b>1.8</b>	<b>2</b>
<b>social support</b>	<b>emotional</b>	<b>23</b>	<b>41.8</b>	<b>16</b>
	<b>instrumental</b>	<b>14</b>	<b>25.5</b>	<b>6</b>
	<b>informational</b>	<b>2</b>	<b>3.6</b>	<b>1</b>
	<b>emotinal and instrumental</b>	<b>8</b>	<b>14.5</b>	<b>5</b>
	<b>emotinal and informatinal</b>	<b>6</b>	<b>10.9</b>	<b>1</b>
	<b>instrumental and informatinal</b>	<b>1</b>	<b>1.8</b>	
	<b>none</b>	<b>1</b>	<b>1.8</b>	<b>1</b>
<b>anxiety</b>	<b>no anxiety</b>	<b>32</b>	<b>58.2</b>	<b>21</b>
	<b>moderat anxiety</b>	<b>18</b>	<b>32.7</b>	<b>4</b>
	<b>sever anxiety</b>	<b>5</b>	<b>9.1</b>	<b>5</b>
<b>depression</b>	<b>no depression</b>	<b>30</b>	<b>54.5</b>	<b>21</b>
	<b>mild depression</b>	<b>13</b>	<b>23.6</b>	<b>3</b>
	<b>moderate depression</b>	<b>8</b>	<b>14.5</b>	<b>2</b>
	<b>sever depression</b>	<b>4</b>	<b>7.3</b>	<b>4</b>
<b>aggressivness</b>	<b>no aggressoin</b>	<b>46</b>	<b>83.6</b>	<b>26</b>
	<b>indirect</b>	<b>5</b>	<b>9.1</b>	<b>2</b>
	<b>agressive</b>	<b>3</b>	<b>5.5</b>	
	<b>direct aggressive</b>	<b>1</b>	<b>1.8</b>	<b>2</b>
<b>behaviour disorders</b>	<b>POSITIVE</b>	<b>10</b>	<b>18.2</b>	<b>7</b>
	<b>NEGATIVE</b>	<b>45</b>	<b>81.8</b>	<b>23</b>
<b>coping process</b>	<b>active cognitive</b>	<b>13</b>	<b>23.6</b>	<b>12</b>
	<b>active behavioural</b>	<b>8</b>	<b>14.5</b>	<b>6</b>
	<b>avoidance</b>	<b>6</b>	<b>10.9</b>	<b>4</b>
	<b>active cognitive and behvioural</b>	<b>9</b>	<b>16.4</b>	<b>6</b>
	<b>active cognitive and avoidance</b>	<b>12</b>	<b>21.8</b>	
	<b>active behavioural and avoidance</b>	<b>7</b>	<b>12.7</b>	<b>2</b>

## socioeconomic stander

The table( 9 ) shows the association of psychological parameters to socioeconomic stander

### *Relation of insight to illness to socioeconomic stander:*

The table shows that in patients with socioeconomic stander below moderate there were 13 patient out of 55 patients( 23.6%) had insight to their illness and 42 patients( 76.4%) had no insight to their illness .

while in patients with moderate socioeconomic stander there were 13 patients out of 30 patients ( 43.3%) had insight to their illness and 17 patients( 56.7%) had no insight to their illness .

while in patients with high socioeconomic stander there were 5 patient out of 15 patients( 33.3%) had insight to their illness and 10 patients ( 66.7%) had no insight to their illness .

*Accordingly  $p$  value =  $0.17 > 0.05$  ( not significant )*

i.e. there is no real correlation between insight to illness and the socioeconomic stander.

### *Relation of religious believes to socioeconomic stander*

The table shows that in patients with socioeconomic stander below moderate there were 53 patient out of 55 patients( 96.4%) who said our god is with us in our illness, 1 patient( 1.8%) who said my god is against me in my illness and 1 patient( 1.8%) who said our god has no thing to do with me in my illness .

While in patients with moderate socioeconomic stander there were 27 patients out of 30 patients( 90%) who said our god is with us in our illness, 1 patient( 3.3%) who said my god is against my in my illness and 2 patients ( 6.7%) who said our god has no thing to do in our illness .

While in patients with high socioeconomic stander there were 15 patients out of 15 patients ( 100%) who said our god is with us in our illness.



*accordingly  $p$  value  $=0.6 > 0.05$ ( not significant)*

i.e. there is no real correlation between religious believe and socioeconomic stander.

*Relation of social support to socioeconomic stander:*

The table shows that in patients with socioeconomic stander below moderate there were 23 patients out of 55 patients( 41.8%) had emotional support ,14 patients( 25.4%) had instrumental support, 2 patients( 3.6%) had informational support, 8 patients ( 14.5%) had and instrumental support and 6 patients ( 10.9%) had emotional and informational support ,1 patient( 1.8%) who had instrumental and informational support and 1 patient ( 1.8%) had no support.

While in patients with moderate socioeconomic stander there were 16 patients out of 30 patients ( 53.3%) who had emotional support ,6 patients ( 20%) had instrumental support, 1 patient ( 3.3%) had informational support, 5 patients ( 16.7%) had emotional and instrumental support, 1 patient( 3.3%) had emotional and informational support, and 1 patient ( 3.3%) had no support.

While in patients with high socioeconomic stander there were 4 patients out of 15 patients ( 26.7%) had emotional support ,5 patients( 33.3%) had patients instrumental support , 1 patient ( 6.7%) had informational support, 3 patients ( 20%) had emotional and instrumental support and 2 patients ( 13.3%) had instrumental and informational support.

*Accordingly  $p$  value  $=0.38 > 0.05$ (not significant)*

i.e. there is no real correlation between social support regarding to socioeconomic stander in pediatric cancer patients.

*Relation of anxiety to socioeconomic stander*

The table shows that in patients with socioeconomic stander below moderate there were 32 patients out of 55 patients ( 58.6%) had no anxiety, 18 patients( 32.3%) had moderate anxiety and 5 patients ( 9.1%) had severe anxiety

while in patients with moderate socioeconomic stander there were 21 patients out of 30 patients( 70%) had no anxiety ,4 patients( 13.3%) had moderate anxiety and 5 patients( 16.7%) had severe anxiety .

while in patients with high socioeconomic stander there were 10 patients out of 15 patients ( 66.7%) had no anxiety and 5 patients( 33.3%) had moderate anxiety.

*Accordingly  $p$  value =0. 18 > 0.05(not significant)*

i.e. there is no real correlation between anxiety regarding to socioeconomic stander in pediatric cancer patients.

*Relation of depression to socioeconomic stander*

the table shows that in patients with socioeconomic stander below moderate there were 30 patients out of 55 patients( 54.5%) had no depression, 13 patients ( 23.6%) had mild depression , 8 patients( 14.5%) had moderate depression and 4 patients( 7.3%) had severe depression .

while in patients with moderate socioeconomic stander there were 21 patients out of 30 patients ( 70%) had no depression, 3 patients( 10%) had mild depression, 2 patients( 6.7%) had moderate depression and 4 patients ( 13.3%) had severe depression

while in patients with high socioeconomic stander there were 10 patients out of 15 patients( 66.7%) had no depression, 2 patients ( 13.3%) had mild depression, 2 patients( 13.3%) had moderate depression and 1 patient ( 6.7%) had sever depression.

*Accordingly  $p$  value =0. 54 > 0.05(not significant)*

i.e. there is no real increase in probability of having depression regarding to socioeconomic stander in pedantic cancer patients

*Relation of aggression to socioeconomic stander*

The table shows that in patients with socioeconomic stander below moderate their were 46 patients out of 55 patients ( 83.6%) had no aggression, 5 patients( 9.1%) had indirect aggression, 3 patients ( 5.4%) were aggressive and 1 patient ( 1.8%) had direct aggression

While in patients with moderate socioeconomic stander there were 26 patients out of 30 patients( 86.7%) had no aggression, 2 patients( 6.7%) had indirect aggression and 2 patients( 6.7%) had direct aggression

While in patients with high socioeconomic stander there were 11 patients out of 15 patients( 73.3%) had no aggression , 3 patients( 20%) had indirect aggression and 1 patient( 6.7%) had aggressive aggression

*Accordingly p value =0. 43 > 0.05(not significant)*

i.e. there is no real increase in probability of having aggression in pedantic cancer patients regarding to socioeconomic stander.

*Relation of behavior disorders to socioeconomic stander*

The table shows that in patients with socioeconomic stander below moderate there were 10 patients out of 55 patients ( 18.2%) had positive behavior disorders and 45 patients ( 81.8%) had negative behavior disorders.

While in patients with moderate socioeconomic stander there were 7 patients out of 30 patients( 23.3%) had positive behavior disorders and 23 patients( 76.7%) had negative behavior disorders.

while in patients with high socioeconomic stander there were 2 patients out of 15 patients ( 13.3%) had positive behavior disorders ,13 patients ( 86.7%) had negative behavior disorders.

*Accordingly p value =0. 7> 0.05(not significant)*

i.e there is no real increase in probability of having behavior disorders in pediatric cancer patients regarding to socioeconomic stander .

*Relation of coping process to socioeconomic stander*

the table shows that in patients with socioeconomic stander below moderate there were 13 patients out of 55 patients ( 23.6%) used active cognitive, 8 patients( 14.5%) used active behavioral, 6 patients( 10.9%) used avoidance ,9 patients ( 16.4%) used active cognitive and active behavioral,12patients( 21.8%) used active cognitive and avoidance and 7 patients ( 12.7%) used active behavioral and avoidance,

while in patients with moderate socioeconomic stander there were 12 patients out of 30 patients ( 40%) used active cognitive, 6 patients( 20%) used active behavioral , 4 patients ( 13.3%) used avoidance 6 patients ( 20%) used active cognitive and active behavioral and 2 patients ( 6.7%) used active behavioral and avoidance.

while in patients with high socioeconomic stander there were 9 patients out of 15 patients( 60%) used active cognitive, 4 patients( 26.7%) used active behavioral and , 2 patient ( 13.3%) used avoidance

*Accordingly  $p$  value =0. 02< 0.05(significant)*

i.e there is real association of coping process in pediatric cancer patient regarding to socioeconomic stander. with increase in usage of coping methods with low socioeconomic stander .

**Table (10) Percentage of Psychiatric parameter in general population and cancer children in our work**

<b>Psychiatric parameter</b>	<b>Percentage in general population</b>	<b>Percentage in cancer children</b>
<b>Behaviour disorders</b>	<b>2.6%<sup>(1)</sup></b>	<b>19%</b>
<b>Anxiety</b>	<b>3.1 %<sup>(2)</sup></b>	<b>37%</b>
<b>Depression</b>	<b>4.1%<sup>(3)</sup></b>	<b>39%</b>
<b>Aggression</b>	<b>1.2%<sup>(4)</sup></b>	<b>17%</b>

- 1. Head Start Mental Health Resources, 866-763-6481,  
<http://www.hskids-tmhc.org/>**
- 2. Anxiety Disorders Association of America, 240-485-1001,  
[www.adaa.org](http://www.adaa.org)**
- 3. National Association of School Psychologists, 301-657-0270,  
<http://www.nasponline.org/>**
- 4. American Academy of Child and Adolescent Psychiatry,  
<http://www.aacap.org/>**