

## Post-traumatic stress disorder and Alexithymia among people with cancer

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### **Abstract:**

This study aimed to investigate the relationship between Post Traumatic Stress Disorder (PTSD) and alexithymia among cancer patients in Batna. The study included a sample of 26 individuals diagnosed with various types of cancer, selected from the Cancer Control Center in Batna. Data collection relied on Davidson's (PTSD) test and the Toronto Alexithymia Scale 20 (TAS-20). The results revealed high levels of both PTSD and alexithymia among the patients. However, no statistically significant relationship was found between PTSD and alexithymia in their overall scores. There was a positive correlation between all dimensions of alexithymia and the avoidance dimension of PTSD. Furthermore, the results did not show any statistically significant differences in the scores of alexithymia and PTSD attributed to gender or age.

**Keywords: Cancer, Trauma, Alexithymia, Post-traumatic stress disorder.**

## **INTRODUCTION:**

Health is widely regarded as a state of relative equilibrium in bodily functions, necessitating concerted efforts in disease prevention and health promotion within communities. Chronic diseases, which account for a staggering 59% of global deaths annually, stand as formidable challenges in modern healthcare<sup>1</sup>. Among these chronic illnesses, cancer emerges as a complex array of over 100 different diseases characterized by uncontrolled cellular proliferation, often resulting in the formation of tumors that invade surrounding tissues<sup>2</sup>.

The diagnosis and chemo of cancer present individuals with significant stressors that can profoundly impact their psychological well-being. Indeed, research has indicated that cancer diagnosis and treatment may precipitate post-traumatic stress disorder (PTSD) in a considerable proportion of patients, with prevalence rates ranging from 5% to 35%<sup>3,4</sup>. The sudden and unexpected nature of the diagnosis, coupled with the life-threatening implications of the disease and its treatment modalities, can evoke intense emotional responses characterized by fear and helplessness<sup>5</sup>. Living with a life-threatening illness like cancer entails a continuous onslaught of stressors and threats, rather than a single acute event, further exacerbating psychological distress.

In addition to PTSD, cancer patients commonly experience anxiety and affective disorders, including alexithymia, which can significantly impact their quality of life.

Alexithymia, characterized by difficulty in identifying and expressing emotions, has been reported in a substantial proportion of cancer patients, with prevalence rates ranging from 1% to 58%. This subclinical phenomenon is marked by impairments in emotional processing, including difficulty in describing feelings and distinguishing them from bodily sensations<sup>6,7,8</sup>.

Moreover, alexithymia has been associated with a range of adverse health outcomes, including depression and various somatic and psychiatric disorders. Individuals with alexithymia may struggle to recognize and articulate their emotions, leading to heightened levels of psychological distress and exacerbating existing mental health conditions<sup>9</sup>. Notably, alexithymia has been identified as a risk factor for mortality, particularly among middle-aged men<sup>10</sup>. Despite its profound implications for health and well-being, alexithymia remains an underexplored phenomenon in the context of cancer care.

Cancer tends to present individuals with a multitude of challenges, both physical and psychological. From the immediate shock of diagnosis to the enduring stressors of treatment and survivorship, cancer patients navigate a complex landscape of emotions and experiences. Understanding the psychological impact of cancer, including the prevalence of conditions such as PTSD and alexithymia, is essential for delivering comprehensive and effective care to individuals facing this formidable disease. Through targeted interventions and support strategies, healthcare providers can help alleviate the burden of psychological distress and enhance the quality of life for cancer patients and survivors.

### **1- Problematic:**

Despite advancements in cancer treatment and survivorship, individuals diagnosed with cancer often experience profound psychological distress, including symptoms of alexithymia. Alexithymia, characterized by difficulties in identifying and expressing emotions, has been linked to various adverse health outcomes and impaired psychosocial functioning. While the association between cancer trauma and alexithymia has been acknowledged in the literature<sup>11</sup>, the mechanisms underlying this relationship remain inadequately understood. Additionally, the potential moderating role of life orientation in this relationship has received limited empirical attention<sup>12</sup>.

This study aims to address fill the gap in existing research by investigating the role of cancer trauma in the development of alexithymia, following a cancer diagnosis. Also Understanding how

patients interact with cancer trauma to develop alexithymic factors that can inform the development of tailored interventions aimed at promoting psychological well-being and quality of life among cancer survivors.

Based on the above data, we can ask the following questions:

- What are the prevalence of Post-traumatic stress disorder (PTSD) and alexithymia among individuals diagnosed with cancer?
- Is there a correlation between the dimensions of Post-traumatic stress disorder (PTSD) and alexithymia?
- Are there statistically significant differences in the degrees of both Ptsd and alexithymia due to the gender variable?
- Are there statistically significant differences in the degrees of both Ptsd and alexithymia due to the Age variable?

## **2- hypotheses:**

- Individuals diagnosed with cancer exhibit a higher prevalence of Ptsd and alexithymia.
- There is a positive correlation between the dimensions of Post-traumatic stress disorder (PTSD) and alexithymia.
- The scores of both PTSD and alexithymia differ according to age and gender

## **3- Basic concepts of the study:**

### **• Cancer trauma :**

The DSM-5 does not explicitly identify medical illness as a potential traumatic stressor; however, the presence of PTSD symptoms in cancer survivors suggests that cancer can indeed lead to trauma in some individuals. Reported rates of cancer-related PTSD range from 0% to 35%, usually hovering around 10%, which is similar to rates observed in other traumatic stressors<sup>13,14</sup>. Moreover, a

significant proportion of survivors exhibit partial PTSD symptoms, characterized by experiencing at least two symptom clusters<sup>15,16</sup>.

Several factors contribute to the risk of stress responses in cancer survivors, which are categorized as residual, current, and anticipated stressors<sup>17</sup>. Residual stressors include prior traumatic experiences and negative life events, predisposing individuals to cancer-related PTSD<sup>18,19</sup>.

Anticipatory stressors encompass uncertainties or fears about the future, which could potentially exacerbate PTSD symptoms<sup>20,21</sup>.

However, findings regarding the predictive role of cancer stage and recurrence in PTSD incidence have been inconsistent. Additionally, demographic factors such as younger age, female gender, and lower education level are associated with a higher risk of PTSD following a cancer diagnosis<sup>22</sup>.

- **Alexithymia :**

Over the past decade, a significant body of literature has explored the concept of alexithymia, originally coined by Sifneos as "no words for mood"<sup>23</sup>. Initially applied to patients with psychosomatic issues who struggled to verbally articulate their emotional states, alexithymia was characterized by a reality-based, concrete cognitive style, minimal fantasizing ability, stereotypical interpersonal relationships, and resistance to traditional psychotherapy<sup>24</sup>. Subsequently, the term has been extended to include individuals with somatic complaints, addictive and narcissistic problems, and those from lower socioeconomic backgrounds<sup>25</sup>.

Alexithymia is regarded as a disorder of affect regulation and has been identified as a risk factor for various somatic disorders like chronic pain and breast cancer, as well as psychiatric disorders such as substance-related and eating disorders<sup>26</sup>. Additionally, it has been associated with a higher mortality risk among middle-aged men<sup>27</sup>. Although direct evidence linking this personality trait to impaired emotional stimuli processing is limited, studies involving electrophysiological measures of autonomic arousal and experimental

psychology investigations have shown deficits in facial expression recognition and processing emotional words or scenes<sup>28</sup>.

#### 4-Materials and Methods:

- **Design and sample:**

A descriptive approach was the most suitable for the current study; it describes the phenomenon to study it as it is in reality, which also aims to collect data on several variables, especially if there is a relationship between them. In addition to trying to find the direction of that relationship between the study variables, in this study, we describe the relationship Between the trauma of contracting cancer and its effect on the patient's life and the relationship of these variables to the emergence of alexithymia.

This study was applied to a sample of 26 people newly diagnosed with different types of cancer, where the study sample was selected from the patients visiting the specialized cancer hospital in Batna and by distributing some electronic forms to cancer patients, and the research sample consisted of (8 men and 18 females) giving us a total of 26 patients. Their age ranges from 15 years to 75 years old.

- **Sample characteristics:**

**Table1. The characteristics of the sample members and their distribution by gender**

Sex	N	%
male	08	30.76%
Females	18	69.24%
total	26	100.0%

**Table2. The characteristics of the sample members and their distribution by age**

Age	N	%
15-30 years	08	30.76%
31-46 years	09	34.61%
47-62 years	05	19.23%
63-85 years	04	15.38%
Total	26	100.0%

By analyzing the first and second tables, we can notice that the majority of the study sample from the first table are females (30% more than the men). We also notice from the second table that the majority of the study sample is concentrated between the ages of 15 and 46, with several 17 people, while between the ages of 47 to 85, their number reached only 9 people.

- **Data collection tools:**

To carry out the study, which was conducted at the specialized hospital for cancer in Patna between January 20, 2023, and March 17, 2023, we used two measures according to the following:

- ❖ **Post-traumatic stress disorder scale and its characteristics :**

All clinical practitioners of psychology researchers know Davidson's Post-Traumatic Stress Scale according to DSM-IV, we used the version that Dr. Abdul Aziz Thabet translated The scale consists of 17 items, and the items are divided into 3 subscales :

- Recovering from the traumatic experience
- Avoid traumatic experience
- Excitement

One of the requirements of the scientific conditions that must be met in the scientific study is to ensure the honesty of the scale. Honesty is defined as the fact that the test measures what it was designed to measure and does not measure anything else. Dr. Abdul Aziz Thabet measured the truthfulness of the scale using both the truthfulness of the arbitrators and the truthfulness of internal

consistency and peripheral comparison. For the current study, the scale was re-legalized on a local sample and to confirm the authenticity of the Post-Traumatic Stress Scale, the peripheral comparison method and internal consistency were used, which amounted to 0.75, and this indicates the sincerity of the scale.

To measure the stability in accuracy and consistency in the degrees of the scale it is supposed to measure what needs to be measured.

To measure the constancy the Cronbach Alpha method of internal consistency was used, since the constancy of the Post-Traumatic Stress scale had a value of 0.84. It is a high stability value, which indicates that the statements are clear in the study sample.

**Table3. The Cronbach's Alpha constancy coefficient for the Post-Traumatic Stress scale.**

	Number of items	Number of individuals	Cronbach's alpha
Post-Traumatic Stress Scale (Ptsd)	17	26	0.84

**❖ Toronto Alexithymia Scale (TAS-20) and its characteristics:**

The Toronto Alexithymia Scale (TAS-20) is a 20-item, self-administered questionnaire that measures difficulty in identifying and describing emotions, which is a big part of alexithymia.

The test was Authored by Michael Bagby, James D. A. Parker, and Graeme J. Taylor in 1994, The scale consists of 20 items, and the items are divided into 3 subscales :

- Difficulty identifying feelings
- Difficulty describing feelings
- Externally-oriented thinking



As before the characteristics of the scale were measured by the other and were re-legalized on a local sample to confirm the authenticity of it, the peripheral comparison method and internal consistency were used, which amounted to 0.68, and this indicates the sincerity of the scale.

As for the constancy, the Cronbach Alpha method of internal consistency was used and it amounted to 0.78. It is a high stability value, which indicates that the statements are clear

**Table4. The Cronbach's Alpha constancy coefficient for the Toronto Alexithymia Scale.**

	Number of items	Number of individuals	Cronbach's alpha
Toronto Alexithymia Scale (TAS-20)	20	26	0.78

### 5- Statistical Analysis and Results:

The data was collected by the tools used in the study mentioned above, and by using the Social Sciences Statistical Package System program (SPSS.25), we can discuss the following results: The current study included three hypotheses, the results are presented, and discussed below:

**5.1. Presentation, discussion, and analysis of the results of the first hypothesis:** “Individuals diagnosed with cancer exhibit a higher prevalence of Ptsd and alexithymia”.

**Table5. The means and SD of both Alexithymia and Post-Traumatic Stress (Ptsd).**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Tas-20	26	39,00	78,00	61,1154	10,93006
Ptsd	26	32,00	64,00	50,2308	10,47782

We notice from Table 5 The descriptive statistics reveal notable variability in scores for both 'Tas-20' (alexithymia) and 'Ptsd' (posttraumatic stress disorder) within the sample of 26 participants. For 'Alex', scores range from 39.00 to 78.00 (mean = 61.1154), with a slight left skewness (skewness = -0.446). Similarly, 'Ptsd' scores range from 32.00 to 64.00 (mean = 50.2308), also exhibiting a slight left skewness (skewness = -0.234). These findings provide insights into the distributional characteristics of the variables and inform further analysis.

**Table 6. The means and SD of the three dimensions of both alexithymia and Ptsd.**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Tas-20 (D1)	26	11,00	31,00	23,7692	5,27869
Tas-20 (D2)	26	7,00	21,00	15,1923	3,79494
Tas-20 (D3)	26	15,00	31,00	22,1538	4,54042
PtsdD1	26	10,00	20,00	15,2308	3,43287
PtsdD2	26	12,00	27,00	21,5769	4,65767
PtsdD3	26	11,00	21,00	15,5385	3,24013
Valid N (listwise)	26				

Table 6 shows provide descriptive statistics that offer insights into dimensions of alexithymia (tasD1, tasD2, tasD3) and posttraumatic stress disorder (PtsdD1, PtsdD2, PtsdD3). Each dimension exhibits distinct ranges and means, with varying skewness values indicating different distributions. For alexithymia, means range from 15.1923 to 23.7692 suggesting potential differences in respondents' responses across different facets of alexithymia., while for PTSD, means range from 15.2308 to 21.5769 indicating variations in distributional characteristics across the PTSD dimensions. These statistics provide a nuanced understanding of the data, highlighting the variability across dimensions within each construct.

From the results obtained we can prove that patients with cancer do constitute some level of trauma and a significant level of emotional dullness ( alexithymia ) these results are consistent with the study of (Abraham 2023)<sup>29</sup> that found that respondents had relatively little knowledge of PTSD, with the highest rated items being “I have strong physical reactions when something reminds me of a stressful experience” and “Feeling distant from people.” This goes along with this study, as for alexithymia we found that the results are the same as many literature out there such as (Ipek & Cetin , 2023) <sup>30</sup> that found that patients with cancer tend to show a high level of alexithymia.

**5.2.Presentation, discussion, and analysis of the results of the first hypothesis:**” There is a positive correlation between the dimensions of Post-traumatic stress disorder (PTSD) and alexithymia.”

To see if there was a relationship between Ptsd and alexithymia, we had to look at the overall results in degrees of shock and degrees of alexithymia, and also by looking at the dimensions of each of them.

**Table7. The correlation and relationship between post-traumatic stress and alexithymia**

Correlations		
		Ptsd
Tas-20	Pearson Correlation	,071
	Sig. (2-tailed)	,730
	N	26

Table 7 shows The correlation analysis between alexithymia (Tas-20) and posttraumatic stress disorder (PTSD) reveals a Pearson correlation coefficient of 0.071, indicating no significant correlation between the two variables. With a sample size of 26 for both

variables, the lack of significance suggests that there is insufficient evidence to conclude a meaningful relationship between alexithymia and PTSD in this study. Further investigation with larger sample sizes or alternative methodologies may be warranted to explore potential associations between these constructs.

These results are roughly consistent with the study of (De Vries, Forni, Voellinger, & Stiefel, 2012)<sup>31</sup> that showed conflicting results.

There is no clear indicator that trauma causes alexithymia. However, several interesting hypotheses emerge such as a possible link between alexithymia and the immune system, between alexithymia and quality of life, or between alexithymia, anxiety, and depression. The question of to what degree alexithymia in cancer patients is a trait or a state cannot be answered at the current time and needs further research.

As for this study, we can probably connect the dots as to why there is no connection between the two maybe a result of the environmental factors to the psychological toughness that the Algerian people enjoy, and also the psychological dullness that has characterized this person since birth, as it is frowned upon to show feelings, especially for men.

**Table8. The correlation matrix between the dimensions of post-traumatic stress and alexithymia.**

Correlations				
		Ptsd (D1)	Ptsd (D2)	Ptsd (D3)
Tas-20 (D1)	Pearson Correlation	-,001	,821**	,191
	Sig. (2-tailed)	,995	,000	,335
Tas-20 (D2)	Pearson Correlation	,113	,776**	,141
	Sig. (2-tailed)	,582	,000	,492
Tas-20 (D3)	Pearson Correlation	,000	,618**	,065

	Sig. (2-tailed)	,999	,001	,753
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Table 8 indicates The correlation analysis between different dimensions of posttraumatic stress disorder (PTSD) and corresponding dimensions of alexithymia (Tas-20) yielded various Pearson correlation coefficients and associated p-values.

For Ptsd (D1), there was a weak positive correlation with Tas-20 (D1) ( $r = 0.191$ ,  $p = 0.141$ ), but it was not statistically significant. Ptsd (D2) showed a strong positive correlation with Tas-20 (D2) ( $r = 0.821$ ,  $p < 0.001$ ), indicating a significant relationship between these dimensions.

However, for Ptsd (D3), there was a weak negative correlation with Tas-20 (D3) ( $r = -0.001$ ,  $p = 0.776$ ), which was not statistically significant

These findings suggest a varying degree of association between different dimensions of PTSD and alexithymia. Notably, while a significant correlation was observed between Ptsd (D2) (“Avoiding traumatic experience”) and Tas-20 (D2) (“Difficulty describing feelings”), this positive correlation indicates that individuals who experience greater difficulty in describing their feelings are more likely to engage in behaviors aimed at avoiding reminders or discussions of their traumatic experiences, the relationship between other dimensions was either weak or non-significant. “these findings align partially with the second hypothesis”

**5.3.Presentation, discussion, and analysis of the results of the third hypothesis:** “The scores of people with cancer on both shock disorder and concealment differ according to gender and age”.

**Table9. Differences between the sexes on the alexithymia scale and the Ptsd scale, and the value of the Mann-Whitney test to indicate differences between the sexes.**

Ranks									
	Sex	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)	Exact Sig.
Tas-20	Male	8	16,25	130,00	50,000	221,000	-1,224	,221	,221
	Female	18	12,28	221,00					
	Total	26							
Ptsd	Male	8	13,31	106,50	70.500	106,500	-,084	,933	,935 <sup>b</sup>
	Femaale	18	13,58	244,50					
	Total	26							

Table 9 shows The Mann-Whitney U test was utilized to compare the ranks of Tas-20 (alexithymia) and PTSD scores between male and female participants. For Tas-20, males exhibited a slightly higher mean rank compared to females, although the difference was not statistically significant ( $U = 50.000$ ,  $Z = -1.224$ ,  $p = 0.221$ ). Similarly, for PTSD scores, there was no significant difference in mean ranks between males and females ( $U = 70.500$ ,  $Z = -0.084$ ,  $p = 0.933$ ). These findings suggest that there are no significant gender-based differences in alexithymia and PTSD scores within the studied sample. However, caution is advised in interpretation due to the relatively small sample size."

**Table10. Differences between the sexes on the three dimensions of the Ptsd and alexithymia scales, and the value of the Mann-Whitney test to indicate differences between the sexes.**

Ranks									
	Sex	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Wilcoxon W	Z	Sig	
Tas-20 (D1)	Male	8	13,63	109,00	71,000	224,000	-,056	,955	
	Female	18	13,44	242,00					
Tas-20 (D2)	Male	8	14,63	117,00	63.000	234.000	-,504	,614	
	Female	18	13,00	234,00					

Tas-20 (D3)	Male	8	15,75	126,00	54,000	225,000	-1,006	,315
	Female	18	12,50	225,00				
Ptsd (D1)	Male	8	12,75	102,00	66,000	102,000	-,336	,737
	Female	18	13,83	249,00				
Ptsd (D2)	Male	8	14,69	117,50	62,500	233,500	-,531	,595
	Female	18	12,97	233,50				
Ptsd (D3)	Male	8	14,94	119,50	60,500	231,500	-,647	,518
	Female	18	12,86	231,50				
	Total	26						

The results from Table 10 indicate no significant differences between sexes in the Ptsd and alexithymia dimension scores. For Ptsd, including Recovering the traumatic experience (Ptsd D1), Avoiding traumatic experience (Ptsd D2), and Excitement (Ptsd D3), the Mann-Whitney U tests revealed no significant distinctions between males and females ( $p > 0.05$ ). Similarly, the analysis of alexithymia dimensions, encompassing Difficulty identifying feelings (Tas-20 D1), Difficulty describing feelings (Tas-20 D2), and Externally-oriented thinking (Tas-20 D3), demonstrated no statistically significant differences between sexes ( $p > 0.05$ ).

In all of the alexithymia dimensions males scored slightly higher than females for the dimensions of Ptsd males scored slightly higher than females in D2 and D3 and slightly lower than females in D1.

These findings suggest a lack of gender-based disparities in both Ptsd and alexithymia dimensions, underscoring the importance of considering other factors that may contribute to individual differences in trauma response and emotional processing. Further exploration with larger and more diverse samples may provide additional insights into these relationships.

**Table 11. The significance of the differences between age groups on the Ptsd and alexithymia scales, and the value of the Kruskal-Wallis H test to indicate differences between the age groups.**

Ranks						
	Age ranges	N	Mean Rank	Kruskal-Wallis H	df	Asymp. Sig.
Tas-20	15-33	9	14,06	,796	3	0.850
	34-49	9	12,50			
	50-65	6	15,17			
	66-81	2	10,50			
	Total	26				
Ptsd	15-33	9	12,61	,692	3	0.082
	34-49	9	17,11			
	50-65	6	13,25			
	66-81	2	2,00			
	Total	26				

Table 11 presents the mean ranks of Tas-20 and Ptsd scores across different age ranges, along with the results of the Kruskal-Wallis H test, which assesses the differences among age groups.

For Tas-20: The Kruskal-Wallis H test yielded a non-significant result ( $H = 0.850$ ,  $df = 3$ ,  $p = 0.796$ ), indicating no statistically significant differences in Tas-20 scores across age ranges.

The mean ranks ranged from 10.50 to 15.17 across the age groups, suggesting relatively consistent scores across different age ranges.

For Ptsd: Similarly, the Kruskal-Wallis H test for Ptsd scores also yielded a non-significant result ( $H = 0.082$ ,  $df = 3$ ,  $p = 0.692$ ), indicating no statistically significant differences across age groups.

The mean ranks ranged from 2.00 to 17.11 across the age groups, with no discernible pattern of variation.

Overall, these findings suggest that there are no significant differences in Tas-20 and Ptsd scores across different age ranges.



**Table12. The significance of the differences between age groups on the dimensions of the Ptsd and alexithymia scales, and the value of the Kruskal-Wallis H test to indicate differences between the age groups.**

Ranks						
	Age ranges	N	Mean Rank	Kruskal-Wallis H	df	Asymp. Sig.
Tas-20 (D1)	15-33	9	14,17	.864	3	.834
	34-49	9	13,78			
	50-65	6	13,67			
	66-81	2	8,75			
Tas-20 (D2)	15-33	9	13,67	.349	3	.951
	34-49	9	12,78			
	50-65	6	14,83			
	66-81	2	12,00			
Tas-20 (D3)	15-33	9	13,00	1.844	3	.605
	34-49	9	13,00			
	50-65	6	16,58			
	66-81	2	8,75			
Ptsd (D1)	15-33	9	11,17	5.272	3	.153
	34-49	9	16,83			
	50-65	6	14,83			
	66-81	2	5,00			
Ptsd (D2)	15-33	9	12,44	.544	3	.909
	34-49	9	13,22			
	50-65	6	15,33			
	66-81	2	14,00			
Ptsd (D3)	15-33	9	15,11			
	34-49	9	15,00			
	50-65	6	12,42			
	66-81	2	2,75			
	Total	26				

Table 12 displays mean ranks and results of the Kruskal-Wallis H test for Tas-20 and Ptsd scores across various age ranges and dimensions.

For Tas-20: Tas-20 (D1), (D2), and (D3) showed no significant differences across age groups ( $p > 0.05$ ).

For Ptsd: Ptsd (D1), (D2), and (D3) also revealed no significant differences across age groups ( $p > 0.05$ ).

Overall, these findings suggest no significant variations in Tas-20 and Ptsd scores across age ranges and dimensions.

Relying on Tables 9,10,11 and 12 we can say that the third hypothesis which states “The scores of both PTSD and alexithymia differ according to age and gender ” simply does not correspond with the results we found and there for it’s not true, however Further research with larger sample sizes may be needed for validation and deeper exploration.

### **Conclusion :**

In conclusion, the comprehensive analysis of the data provides valuable insights into the psychological experiences of cancer patients. First, our results confirm that cancer patients do experience some degree of trauma and display significant emotional inertia, often referred to as alexithymia. This realization highlights the significant emotional challenges associated with coping with cancer-related stressors.

Second, contrary to our initial hypothesis, our investigation did not reveal a significant association between PTSD and alexithymia in cancer patients. The moderate correlation coefficient of 0.07 indicates that the relationship between these variables is negligible, leading us to reject the hypothesis postulating a direct association between PTSD and alexithymia.

Furthermore, our analysis revealed significant positive correlations between alexithymia and certain aspects of PTSD, particularly difficulty describing feelings and avoidance of traumatic experiences. This finding highlights the importance of considering emotion-processing deficits in understanding and addressing PTSD-related symptoms, particularly avoidance behaviors. Future research efforts should aim to elucidate the mechanisms underlying the link between

alexithymia and avoidance in PTSD and may inform targeted interventions to improve emotional processing and attenuate avoidance tendencies in individuals affected by cancer-related trauma.

Finally, our examination of demographic factors, including age and gender, did not support the hypothesis that they play a moderating or mediating role in the relationship between cancer trauma and alexithymia. The lack of statistically significant differences in scores on these variables suggests that demographic characteristics may not have a significant impact on the interaction between cancer-related trauma and alexithymia in patients.

In summary, despite the significant psychological distress associated with cancer, our study highlights the complexity of this population's emotional experiences. By illuminating the complex links between trauma, alexithymia, and post-traumatic stress disorder (PTSD), our findings contribute to a more nuanced understanding of the psychological dynamics inherent in the cancer journey, targeting the diverse needs of patients facing challenges. Provide targeted interventions and support strategies. diagnosis.

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