

Correlation between Psychological Resilience and Anticipatory Grief in Young and Middle-aged Patients with Advanced Liver Cancer

Authors: Fang Shuheng, Zhu Hengmei

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Abstract

Objective: To investigate the correlation between psychological resilience and anticipatory grief in young and middle-aged patients with advanced liver cancer. **Methods:** A total of 120 young and middle-aged patients with advanced liver cancer admitted to our hospital from March 2024 to December 2024 were selected as study subjects. Convenience sampling was used to survey patients' general information, anticipatory grief status, and psychological resilience state, and to analyze their correlation. **Results:** The psychological resilience score was (65.92 ± 15.30) points, and the anticipatory grief score was (38.59 ± 15.90) points. The correlation between psychological resilience and anticipatory grief was determined to be negative (correlation coefficient $r = -0.190$). **Conclusion:** With appropriate psychological resilience intervention measures and anticipatory grief adjustment measures, the quality of life of young and middle-aged patients with advanced liver cancer at the terminal stage can be improved to a certain extent.

Full Text

A Study on the Correlation between Psychological Resilience and Anticipatory Grief in Young and Middle-aged Patients with Advanced Liver Cancer

Shuheng Fang¹, Hengmei Zhu²

¹Department of Anesthesiology, Third Affiliated Hospital of Navy Medical University, Shanghai 200438, China

²Department of Special Needs Diagnosis and Treatment, Third Affiliated Hospital of Navy Medical University, Shanghai 200438, China

Abstract

Objective: To investigate the correlation between psychological resilience and anticipatory grief in young and middle-aged patients with advanced liver cancer. **Methods:** A total of 120 young and middle-aged patients with advanced liver cancer admitted to our hospital between March 2024 and December 2024 were selected as study subjects. Using a convenience sampling method, we surveyed patients' general information, anticipatory grief status, and psychological resilience, and analyzed their correlations. **Results:** The psychological resilience score of young and middle-aged patients with advanced liver cancer was (65.92 ± 15.30) , while the anticipatory grief score was (38.59 ± 15.90) . The correlation between psychological resilience and anticipatory grief was determined to be negative based on the correlation coefficient ($r = -0.190$). **Conclusion:** With appropriate psychological resilience interventions and anticipatory grief adjustment measures, the quality of life of young and middle-aged patients with advanced liver cancer can be improved to some extent in their terminal stage.

Keywords: young and middle-aged patients; advanced liver cancer; psychological resilience; anticipatory grief; correlation

Liver cancer is a common malignant tumor with high mortality, and its symptoms are highly insidious. Most patients miss the optimal surgical window by the time they are diagnosed [1]. Young and middle-aged patients with advanced liver cancer are particularly vulnerable as they are in the prime of life with many unfulfilled plans, easily falling into emotional distress characterized by despair, fear, and anger, which triggers a series of grief reactions. Anticipatory grief refers to negative emotional responses that continuously affect an individual's cognition, emotion, culture, and social functioning before death, making them feel sorrow [2]. Generally, such negative emotions persist until the end of life, necessitating active intervention for palliative care. Psychological resilience is the ability to regulate and adapt when encountering clearly stressful events [3]. Research has shown that higher levels of psychological resilience in cancer patients are associated with more positive emotions such as optimism, tenacity, and self-esteem [4]. This study primarily explores the relationship between psychological resilience and anticipatory grief in young and middle-aged patients with advanced liver cancer, hoping to provide reference experience for nursing practice in future research.

1.1 Study Subjects

This study selected 120 young and middle-aged patients with advanced liver cancer admitted to our hospital between March 2024 and December 2024 using purposive sampling. Inclusion criteria were: clinically diagnosed with advanced liver cancer; aged 18-45 years (inclusive); clinical TNM stage III or IV; able to read and comprehend without barriers; voluntarily participated in this study. Exclusion criteria were: confused consciousness or cognitive impairment; unaware of their own disease condition; suffering from other serious diseases simultaneously; uncooperative with this investigation.

First Author: Nian Guihong, Charge Nurse, primarily engaged in perioperative nursing management.

Corresponding Author: Zhu Hengmei, Email: zhuhengm2012@163.com.

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1.2 Survey Methods

1.2.1 General Information Survey Based on relevant literature, the researchers designed a general information questionnaire for this study. Items included: patient gender (male/female), age (years), disease course, education level, religious belief, monthly disposable income, marital status, and medical insurance type.

1.2.2 Psychological Resilience Survey The Psychological Resilience Scale (translated into Chinese by Yu et al. in 2011) comprises three dimensions: optimism, self-improvement, and tenacity, with 25 items scored from 0 to 4 points each. Scores below 60 indicate poor resilience, 60-70 (inclusive of 60, exclusive of 70) indicate fair resilience, 70-80 (inclusive) indicate good resilience, and above 80 indicate excellent resilience. Higher scores indicate stronger psychological stress resistance. The overall Cronbach's α coefficient of the scale is 0.91, with content validity of 0.90, demonstrating good reliability and validity.

1.2.3 Anticipatory Grief Survey The Anticipatory Grief Scale (translated by Xin Dajun et al. in 2017, Chinese version) contains 31 items (scored 0-3 points each) and 7 dimensions: self-awareness, disease adjustment, perceived social support, religious comfort, physical symptoms, grief, and anger. Higher scores indicate more severe grief. The overall Cronbach's α coefficient is 0.92, with content validity of 0.92, demonstrating good reliability and validity.

1.3 Quality Control

To ensure the questionnaire survey was minimally affected by other factors and to maximize exclusion of interfering elements, researchers supervised subjects throughout the questionnaire completion process. All questionnaires were completed anonymously and were only accessible to researchers and subjects. Before filling out the questionnaire, researchers explained the specific circumstances to subjects, clarifying the purpose of the form. Only after subjects understood and agreed were questionnaires distributed. The completion time was 40 minutes, with expired responses considered invalid. After collection, valid questionnaires were counted, revealing 100 qualified questionnaires out of 110, yielding a valid recovery rate of 90.91%.

1.4 Statistical Methods

Data were entered using Epidata 3.0 and then imported into SPSS 26.0. Measurement data and count data were expressed as $s \pm$ and n or % respectively. Pearson correlation analysis was used to examine the relationship between psychological resilience and anticipatory grief and their various dimensions.

2. Results

2.1 General Information of Young and Middle-aged Patients with Advanced Liver Cancer

Among the 120 patients, 41 were female (41%) and 59 were male (59%); age ranged from 18-45 years (32.42 ± 7.34); 23 had education below junior high school (23%), 41 had technical secondary school or high school education (41%), 22 had college or undergraduate education (22%), and 14 had master's degree or above (14%); 3 were unmarried (3%), 92 were married (92%), 4 were divorced (4%), and 1 was widowed (1%); 81 had no religious belief (81%) and 19 had religious belief (19%); family monthly income: below 3000 yuan in 14 cases (14%), 3000-5000 yuan in 32 cases (32%), 5001-10000 yuan in 34 cases (34%), and above 10000 yuan in 20 cases (20%); medical insurance: self-paid in 2 cases (2%), rural cooperative medical scheme in 38 cases (38%), urban medical insurance in 58 cases (58%), and other in 2 cases (2%). Disease course: below...

2.2 Psychological Resilience Scores of Young and Middle-aged Patients with Advanced Liver Cancer

In terms of psychological resilience, dimensions ranked from lowest to highest scores were: tenacity—self-improvement—optimism. Details are shown in Table 1.

Table 1 Psychological Resilience Scores of Young and Middle-aged Patients with Advanced Liver Cancer (n=100, $x \pm s$, points)

Dimension	Score Range	Mean Score	Mean Item Score	Rank
Total	60-76	66.29 ± 16.55	2.62 ± 0.29	—
Resilience		$ Optimism 17-$	$30 12.24 \pm 2.36 3.52 \pm 0.18 1 Self-$	
		$improvement 28-$	$48 23.14 \pm 5.23 2.83 \pm 0.45 2 Tenacity 35-$	
		$78 35.78 \pm 10.86 2.75 \pm 0.56$		

2.3 Anticipatory Grief Scores of Young and Middle-aged Patients with Advanced Liver Cancer

The dimension scores of the Anticipatory Grief Scale for young and middle-aged patients with advanced liver cancer are detailed in Table 2.

Table 2 Anticipatory Grief Scores of Young and Middle-aged Patients with Advanced Liver Cancer (n=100, $\bar{x} \pm s$, points)

Dimension	Actual Range	Mean Score	Mean Item Score	Rank
Total Grief	31-46	38.46 ± 8.28	1.23 ± 0.35	—
		Self-awareness —		
		6.62 ± 2.10	2.21 ± 0.49	1 DiseaseAdjustment —
		3.36 ± 1.04	1.10 ± 0.39	2 PerceivedSocialSupport —
		4.08 ± 1.75	2.04 ± 0.59	3 ReligiousComfort —
		3.08 ± 1.59	1.02 ± 0.26	4 PhysicalSymptoms —
		12.38 ± 3.12	0.32 ± 0.09	5 Grief —
		3.29 ± 1.62	0.81 ± 2.07	6 Anger —
		5.59 ± 1.46	1.84 ± 0.58	

2.4 Correlation between Psychological Resilience and Anticipatory Grief in Young and Middle-aged Patients with Advanced Liver Cancer

Psychological resilience and its dimensions showed negative correlations with anticipatory grief and three of its dimensions (physical symptoms, anger, and grief) ($P < 0.05$ or $P < 0.01$), but positive correlations with the other three dimensions (self-awareness, disease adjustment, and perceived social support) ($P < 0.05$ or $P < 0.01$). Psychological resilience and its dimensions showed no correlation with the religious comfort dimension of anticipatory grief. Details are shown in Table 3.

Table 3 Correlation Analysis between Psychological Resilience and Anticipatory Grief in Young and Middle-aged Patients with Advanced Liver Cancer (r)

Resilience Dimension	Total Grief	Self-awareness	Disease Adjustment	Perceived Social Support	Religious Comfort	Physical Symptoms	Grief	Anger
Total Resilience	-	-	-	-0.163*	0.402**	0.331**	-	-
	0.190**	0.237**	0.225**				0.289*	0.279**
Optimism	-	0.331**	0.374**	-0.236**	-0.156*	-	0.452*	0.339**
	0.362**					0.314**		
Self-improvement	-	-	-	0.219**	0.221**	0.165*	-	-
	0.334**	0.334**	0.367**				0.296*	0.261**
Tenacity	-	-	-	0.217**	-	-	-	-
	0.228**	0.238**	0.294**					

Note: ** indicates $P < 0.01$; * indicates $P < 0.05$.

3. Discussion

3.1 Current Status of Psychological Resilience in Young and Middle-aged Patients with Advanced Liver Cancer

Psychological resilience is an individual's ability to adapt to stressful events. This study found that the total psychological resilience score of young and middle-aged liver cancer patients was (66.29 ± 16.55), indicating relatively low psychological resilience levels, which is consistent with similar research findings [5]. The main reasons are as follows: (1) Young and middle-aged patients with advanced liver cancer are generally no longer candidates for surgery and can only receive palliative treatment, which greatly undermines their confidence in fighting cancer; (2) These patients must endure pain, obvious fatigue and fever symptoms, and even cognitive decline, particularly when their condition changes rapidly. Under such circumstances, anxiety, restlessness, and emotional instability become increasingly severe, making it difficult to escape this negative psychological state.

3.2 Current Status of Anticipatory Grief in Young and Middle-aged Patients with Advanced Liver Cancer

Young and middle-aged patients with advanced liver cancer are in the final stage of life, and combined with multiple physical discomforts, they easily feel despair, fear, and anxiety, even leading to self-abandonment. In this study, the total anticipatory grief score of young and middle-aged patients with advanced liver cancer was (38.46 ± 8.28), consistent with Xin Dajun's findings [5]. This shows that young and middle-aged patients, like most other patients, instinctively fear death while cherishing life. Additionally, the self-awareness and disease adjustment scores of these patients were both high, indicating they have some confidence in overcoming the disease and hope to survive. They adjust their life plans according to their conditions, particularly prioritizing the completion of important matters to make life more valuable [6]. Anger had the lowest score because anger typically appears in the early stages of disease (the denial and anger phases). As the disease progresses rapidly and with psychological adjustment, anger decreases toward the later stages, resulting in low anger scores [7].

3.3 Correlation Analysis between Psychological Resilience and Anticipatory Grief in Young and Middle-aged Patients with Advanced Liver Cancer

The negative correlation between psychological resilience and anticipatory grief indicates that higher levels of psychological resilience in young and middle-aged patients with advanced liver cancer are associated with lower levels of anticipatory grief, and vice versa [8-10]. Psychological resilience and its dimensions showed negative correlations with three dimensions of anticipatory grief (physical symptoms, anger, and grief) ($P < 0.05$ or $P < 0.01$), but positive correlations

with the other three dimensions (self-awareness, disease adjustment, and perceived social support) ($P < 0.05$ or $P < 0.01$). The likely reason is that patients with lower psychological resilience are more prone to grief and anger, while also experiencing more severe physical symptoms. When patients are in a stage of strong negative emotions, their self-awareness becomes weaker, they are less willing to make adjustments, and they perceive less social support. Psychological resilience and its dimensions showed no correlation with the religious comfort dimension of anticipatory grief [11-12]. This may be because few young and middle-aged patients with advanced liver cancer have religious beliefs, or possibly due to the small sample size in this study. Further research is needed on the relationship between psychological resilience and religious comfort.

Conclusion

Young and middle-aged patients with advanced liver cancer have high anticipatory grief scores, and their psychological resilience is negatively correlated with anticipatory grief. This indicates that higher psychological resilience is associated with lower anticipatory grief, and vice versa, providing a targeted basis for future interventions. During nursing care, we should strengthen patients' mental health, practice empathy, assist them in facing their disease course positively and optimistically, thereby improving their quality of life and extending their life cycle.

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Note: Figure translations are in progress. See original paper for figures.

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