

# Factors Influencing Global Quality of Life in Advanced Non-Small Cell Lung Cancer Patients Within Three Months Post-Treatment

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## Introduction

Advanced lung cancer and chemotherapy may cause symptom distress and physical and psychosocial function decline which may negatively impact on global quality of life.

## Purpose

The purpose of this study was to identify the factors associated with global quality of life in advanced non-small cell lung cancer patients within the first six months after chemotherapy.

## Material & Method

- This study adopted a cross-correlation design.
- We recruited 50 advanced non-small cell lung cancer patients from a chest medicine ward and an outpatient department of a medical center in northern Taiwan.
- Demographic and clinical characteristics were recorded, and subjects were assessed for symptoms distress, quality of life-related functional dimensions, and global quality of life.

**Table 1. Demographic and Clinical Characteristics (N = 50)**

Variable	N (%)	Mean (SE)
<b>Age</b>		60.16(1.24)
<b>Gender</b>		
Male	29(58.0)	
Female	21(42.0)	
<b>Occupation</b>		
Unemployed	36(72.0)	
Employed	14(28.0)	
<b>Marital status</b>		
Living alone	6(12.0)	
Living with a partner	44(88.0)	
<b>Education level</b>		
Literacy	4(8.0)	
Elementary	18(36.0)	
Junior high	8(16.0)	
Senior high	13(26.0)	
College and above	7(14.0)	
<b>Religion</b>		
None	13(26.0)	
Buddhism/ Taoism	36(72.0)	
Christianity/ Catholicism	1(2.0)	
<b>Cancer stage</b>		
NSCLC stage IIIA	1(2.0)	
NSCLC stage IIIB	8(16.0)	
NSCLC stage IV	41(82.0)	
<b>Histology</b>		
Adenocarcinoma	45(90.0)	
Squamous cell carcinoma	5(10.0)	
<b>Performance status</b>		
Grade 0	48(96.0)	
Grade 1	2(4.0)	
Grade 2	0(0)	

**Table 2 Scores for Symptom Distress, Functioning, Global Quality of Life (N = 50)**

Variable	Mean (SE)
<b>Symptom Distress (SDS)</b>	<b>1.80(0.11)</b>
Fever	1.69(0.13)
Fatigue	1.69(0.14)
Insomnia	1.63(0.10)
Pain	1.59(0.12)
Appearance change	1.49(0.12)
Poor appetite	1.47(0.12)
<b>Functioning scales (EORTC QLQ-C30)</b>	
Physical	84.27(3.11)
Role	75.67(3.99)
Emotional	77.67(2.16)
Cognitive	87.67(2.17)
Social	73.00(3.19)
<b>Global quality of life (EORTC QLQ-C30)</b>	<b>53.50(3.11)</b>

## Results

Advanced non-small cell lung cancer patients with better role function and less symptom distress were more likely to have greater global quality of life; these factors explained 40.6% of the variance in global quality of life.

## Conclusion

- Role function and symptom distress were associated with perceived global quality of life.
- Supportive care and symptom management can enhance their role function and palliative symptom distress.

**Table 3 Factors Significantly Associated with Global Quality of Life Based on Multiple Regression Analysis (N = 50)**

Predictive variable	Adjusted R <sup>2</sup>	Beta	F	p	95% CI	
					Lower	Upper
Role function (EORTC QLQ-C30)	0.406	0.444	17.048	0.001	0.153	0.546
Symptom distress (SDS)		-0.332		0.010	-30.769	-4.370
Constant				0.001	22.809	78.882

EORTC QLQ-C30, European Organization for Research and Treatment of Cancer Quality of Life Questionnaire Core Module SDS, symptom distress scale  
Input independent variable: covariates included symptom distress (continuous score), physical function (continuous score), role function (continuous score), emotional function (continuous score), cognitive function (continuous score), and social function (continuous score).