



elevate
cancer nursing

innovate | integrate | educate | advocate

28th ANNUAL CONGRESS • 17-19 JUNE 2026
Perth Convention and Exhibition Centre

Dyadic Coping and Perceived Stress Among Young and Middle-Aged Lymphoma Patients and Their Spouses: An Actor–Partner Interdependence Model Analysis

Speaker Mengzhuo Cheng

**School of Nursing and Health, Zhengzhou University
China**

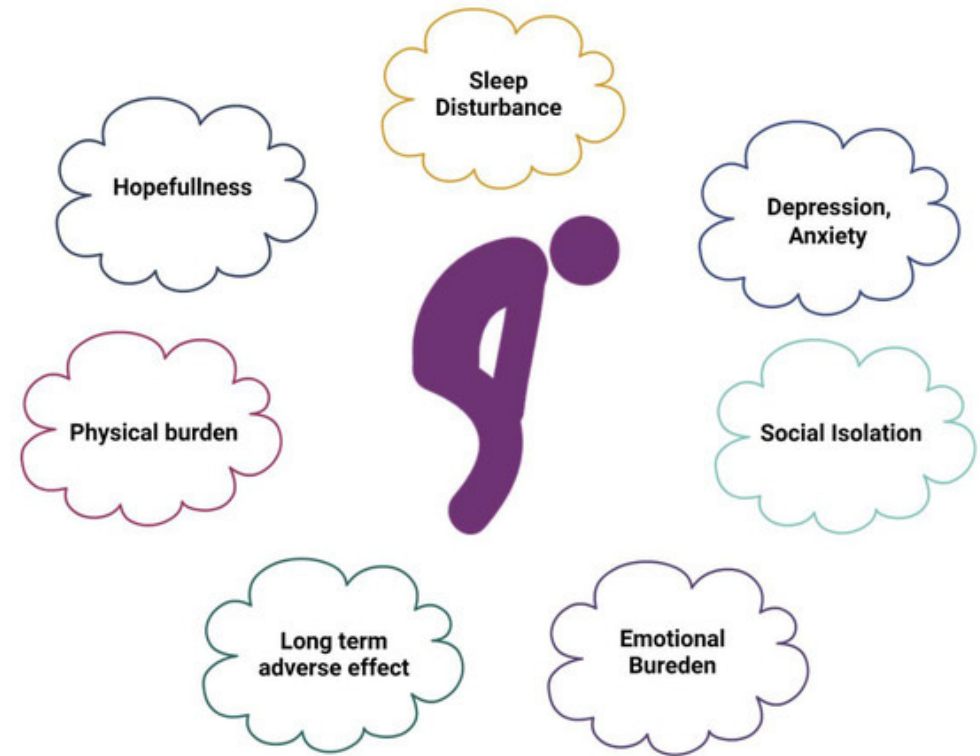
Dyadic Coping and Perceived Stress Among Young and Middle-Aged Lymphoma Patients and Their Spouses: An Actor–Partner Interdependence Model Analysis

Speaker Menghuo Cheng

School of Nursing and Health, Zhengzhou University
China

Introduction

According to global cancer statistics, **lymphoma** ranks among the top ten leading causes of cancer-related mortality worldwide. **Young and middle-aged** patients undergoing **intensive chemotherapy or immunotherapy** often face **substantial psychological distress**, while their spouses—as primary caregivers—simultaneously endure **significant emotional and physical burdens** throughout the prolonged treatment trajectory.



Introduction

Dyadic coping, defined as the interpersonal process in which couples manage shared stress through mutual communication, support, and collaborative problem-solving, has emerged as a **critical protective factor** for psychological adjustment in cancer couples.

However, existing research has predominantly focused on **individual-level stress responses**, leaving a notable gap in understanding the interdependent stress-regulation mechanisms between lymphoma patients and their spouses from a dyadic perspective.

Aim

Based on the **Actor–Partner Interdependence Model (APIM)**, this study examined how **dyadic coping** influences **perceived stress** at both the individual and partner levels, aiming to **provide evidence for couple-based psychological interventions**.

Methods

Study Design

A cross-sectional survey study was conducted.

We employed **a cross-sectional** survey design. Initially, general information and questionnaire data were systematically collected from eligible patient–spouse dyads across **two tertiary hospitals in Henan Province, China**. The study was approved by the ethics committees of the participating hospitals.

Methods

Participants and sampling

Inclusion criteria:

(1) Confirmed histopathological diagnosis of lymphoma; (2) Age 18–59 years; (3) Married and living with spouse; (4) Basic literacy for questionnaire completion.

Exclusion criteria: Severe psychiatric illness or other critical comorbidities.

Using convenience sampling, the study recruited 130 patient–spouse dyads between December 2025 and January 2026. The target sample size meeting the minimum sample size requirement ($N \geq 100$) for structural equation modeling.

Methods

Instruments

(1) General Information Questionnaire:

Gender, age, duration of marriage, education, income, disease type, severity, and hospitalization frequency.

(2) Dyadic Coping Inventory (DCI):

37 items, 5 dimensions (stress communication, supportive coping, delegated coping, negative coping, and common dyadic coping). Likert 5-point scale.

(3) Perceived Stress Scale (PSS):

10 items assessing perceived stress over the past month. Likert 5-point scale; higher scores indicate greater perceived stress.

Methods

Statistical Analysis

Data were analysed using **SPSS 26.0** and **AMOS 26.0** software.

Descriptive statistics were used for demographic characteristics. Pearson correlation was performed to examine bivariate relationships. The Actor–Partner Interdependence Model (APIM) was constructed to analyse actor and partner effects, with maximum likelihood estimation. Model fit was evaluated using χ^2/df , NFI, IFI, GFI, and RMSEA.

Results

Characteristics of the Participants

Table 1. General demographic data of patients and spouses (n = 260)

Item		Patients (n = 130) n (%)	Spouses (n = 130) n (%)
Gender	Male	65 (50.00)	65 (50.00)
	Female	65 (50.00)	65 (50.00)
Educational Level	Elementary school or below	19 (14.62)	38 (29.23)
	High school or vocational school	87 (66.92)	70 (53.85)
	College or higher	24 (18.46)	22 (16.92)
Disease Type	Hodgkin lymphoma	28 (21.54)	—
	Non-Hodgkin lymphoma	75 (57.69)	—
	Other types	27 (20.77)	—
Severity of the disease	Low risk	39 (30.00)	—
	Moderate risk	36 (27.69)	—
	High risk	55 (42.31)	—
Marriage duration (years)	<10	—	11 (8.46)
	10~	—	41 (31.54)
	>25	—	78 (60.00)
Monthly Household Income	<3000	—	94 (72.31)
	3000~	—	19 (14.62)
	>5000	—	17 (13.08)

Results

Characteristics of the Participants

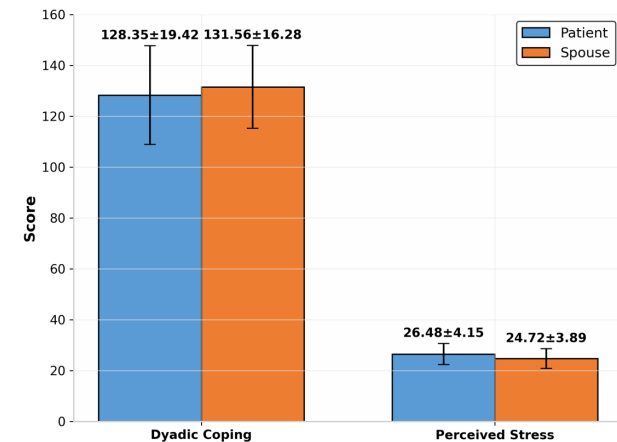
- A total of 270 questionnaires were distributed. 250 valid questionnaires were recovered (130 patients and 130 spouses), with an effective recovery rate of 96.30%.
- The mean age of patients was 38.45 ± 8.72 years and spouses age was 40.12 ± 9.15 years. See Table 1 for detailed demographic characteristics.

Results

Descriptive Statistics

The dyadic coping score of patients was 128.35 ± 19.42 , and the perceived stress score was 26.48 ± 4.15 . The dyadic coping score of spouses was 131.56 ± 16.28 , and the perceived stress score was 24.72 ± 3.89 . No significant difference was found between patients and spouses regarding either dyadic coping ($t = 1.452$, $P = 0.148$) or perceived stress ($t = 1.685$, $P = 0.094$).

Figure 2 Comparison of dyadic coping and perceived stress scores between patients and spouses



Results

Correlation Analysis

Patient dyadic coping was **negatively** correlated with patient perceived stress ($r = -0.672$) and spouse perceived stress ($r = -0.598$). Spouse dyadic coping was **negatively** correlated with spouse perceived stress ($r = -0.641$) and patient perceived stress ($r = -0.618$). Patient perceived stress was **positively** correlated with spouse perceived stress ($r = 0.658$). All correlations were statistically significant ($P < 0.05$).

Table 2 Correlation between dyadic coping and perceived stress in patients and spouses (r)

Variable	Patient DC	Spouse DC	Patient PSS	Spouse PSS
Patient DC	1			
Spouse DC	0.881*	1		
Patient PSS	-0.672*	-0.618*	1	
Spouse PSS	-0.598*	-0.641*	0.658*	1

Note: * $P < 0.05$

Results

APIM Analysis

The APIM demonstrated excellent fit: $\chi^2/df = 0$, NFI/IFI/GFI > 0.95, RMSEA < 0.05. Actor effects were significant for both patients ($\beta = -0.48$, $P < 0.001$) and spouses ($\beta = -0.38$, $P < 0.001$). For partner effects, spouses' dyadic coping significantly predicted patients' perceived stress ($\beta = -0.21$, $P < 0.001$), whereas patients' dyadic coping did not significantly predict spouses' perceived stress ($\beta = -0.22$, $P = 0.128$).

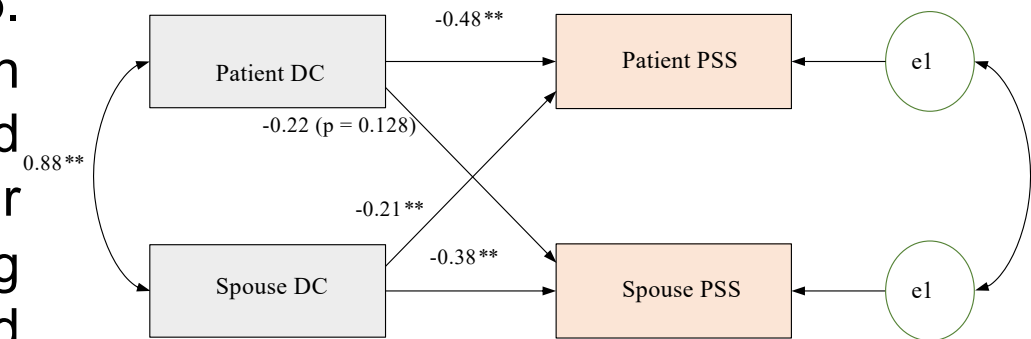


Figure 1 APIM of dyadic coping and perceived stress in young and middle-aged lymphoma patients and their spouses

Discussion

Dyadic Coping and Perceived Stress Levels

- Dyadic coping was at a **moderate level** in both patients and spouses. Disease diagnosis and intensive treatment represent intensely stressful family events.
- Perceived stress was at a **moderate-to-high level**, as young and middle-aged individuals faced multiple pressures from family, career, and finances.
- The absence of significant differences between dyads suggested that both members experienced comparable psychological burden.

Discussion

Actor and Partner Effects

- Significant actor effects indicated that enhancing one's own dyadic coping is an effective pathway to reduce personal stress.
- However, the asymmetric partner effects are particularly noteworthy: spouse's dyadic coping significantly **alleviated** the patient's stress, while the reverse pathway was not significant.
- This suggests that patients are more dependent on spousal support during long-term treatment, and spousal positive coping behaviors provide psychological security that buffers patients' distress.

Discussion

Clinical Implications

Nurses should not limit intervention to the patient alone. Instead, they should:

- Assess dyadic coping in both patients and spouses as a couple unit;
- Involve spouses in disease management strategies;
- Guide couples toward positive communication and mutual support;
- Implement couple-based, family-centered interventions to enhance dyadic coping and reduce bidirectional stress transmission.

Discussion

Limitations

This study has several limitations.

- First, the cross-sectional design limits causal inference;
- Second, convenience sampling from two hospitals in Henan Province may restrict generalizability;
- Third, self-reported measures may introduce response bias. Future studies should employ longitudinal designs and multicenter sampling to further validate these findings.

Conclusion

Dyadic coping was linked to lower perceived stress at both the individual and partner levels in young and middle-aged lymphoma couples. Interdependent stress regulation was evident in these dyads.

Clinical interventions should adopt a dyadic perspective, assessing and supporting both partners to improve mutual coping and psychological well-being.

Thanks!

Cancer Nurses
Society of Australia


elevate
cancer nursing
innovate | integrate | educate | advocate



28th ANNUAL CONGRESS • 17-19 JUNE 2026
Perth Convention and Exhibition Centre