

Caregiver Burden Patterns and Related Factors in Family Caregivers of Patients with Newly Diagnosed Advanced Lung Cancer : A Longitudinal Study

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Introduction

- Family caregivers (FCs) caring for patients with life-threatening advanced lung cancer may have burden experience.
- However, limited studies have explored FCs' burden longitudinally to determine if there is a change in FCs burden and if there are patterns of change.

Objective

- To examine changes in and patterns of overall caregiver burden
- To determine factors predicting these changes and patterns over 6 months after lung cancer diagnosis in patients cared for by family caregivers (FCs).

Methods

- For this longitudinal study, we recruited newly diagnosed lung cancer patient-FC dyads (N=150) from a medical center in Taiwan.
- Four measurement times were taken: before treatment, and 1, 3, and 6 months after treatment.
- The number of patterns of overall caregiver burden was determined by latent class growth analysis
- Factors related to changes in and patterns of overall caregiver burden were identified by generalized estimating equations .

Results

- We identified three patterns of overall caregiver burden over time (% caregivers): higher burden (34.7%), moderate burden (56.0%), and lower burden (9.3%).
- The first pattern showed consistently higher burden over time
- The second pattern showed a steadily moderate burden over time
- The third pattern showed relatively lower burden that dropped slightly 3 months post-treatment. (figure 1)
- The only patient or FC factor predicting changes in overall burden was FCs' self-efficacy, but other factors predicted each pattern. (Table 1)

Table 1 Predictors of changes in and patterns of overall caregiver burden by GEE analysis

Variable	Estimate	Standard error	95% CI		Wald Chi-Square	p
			Lower	Upper		
Changes in overall burden						
(Intercept)	2.769	0.161	2.45	3.08	297.38	<0.001
FC variables						
Another sick family member	0.189	0.055	0.082	0.296	11.97	0.001
No alternative care	0.131	0.053	0.028	0.235	6.153	0.013
Pain	0.020	0.008	0.005	0.035	7.173	0.007
Fatigue	0.017	0.007	0.004	0.031	6.612	0.010
Self-efficacy	-0.042	0.011	-0.063	-0.020	14.74	<0.001
Higher burden pattern (34.7%)						
(Intercept)	2.792	0.314	2.176	3.409	78.868	<0.001
Patient variables						
Poor appetite	0.002	0.001	0.000	0.004	4.393	0.036
FC variables						
No alternative care	0.188	0.070	0.052	0.325	7.298	0.007
Pain	0.024	0.010	0.005	0.044	5.808	0.016
Self-efficacy	-0.048	0.016	-0.079	-0.017	9.231	0.024
Moderate burden pattern (56.0%)						
(Intercept)	2.408	0.135	2.144	2.672	320.03	<0.001
Patient variables						
Male	0.108	0.034	0.041	0.175	10.04	0.002
Depression	0.013	0.005	0.003	0.023	6.355	0.012
FC variables						
Married	0.101	0.044	0.015	0.186	5.350	0.021
Spouse (vs. other)	0.129	0.042	0.047	0.212	9.411	0.002
Fatigue	0.015	0.007	0.002	0.029	4.871	0.027
Self-efficacy	-0.019	0.010	-0.039	0.001	3.607	0.048
Lower burden pattern (9.3%)						
(Intercept)	1.448	0.544	0.382	2.515	7.086	0.008
FC variables						
Self-efficacy	-0.042	0.022	-0.086	0.002	3.540	0.046
Time						
T2/T0	-0.359	0.146	-0.644	-0.073	6.069	0.014
T3/T0	-0.236	0.069	-0.371	-0.102	11.819	0.001

Conclusion

- Our findings can help healthcare professionals identify FCs at relatively high risk of burden and provide them with specific care and to design timely and comprehensive interventions to reduce FCs' burden.

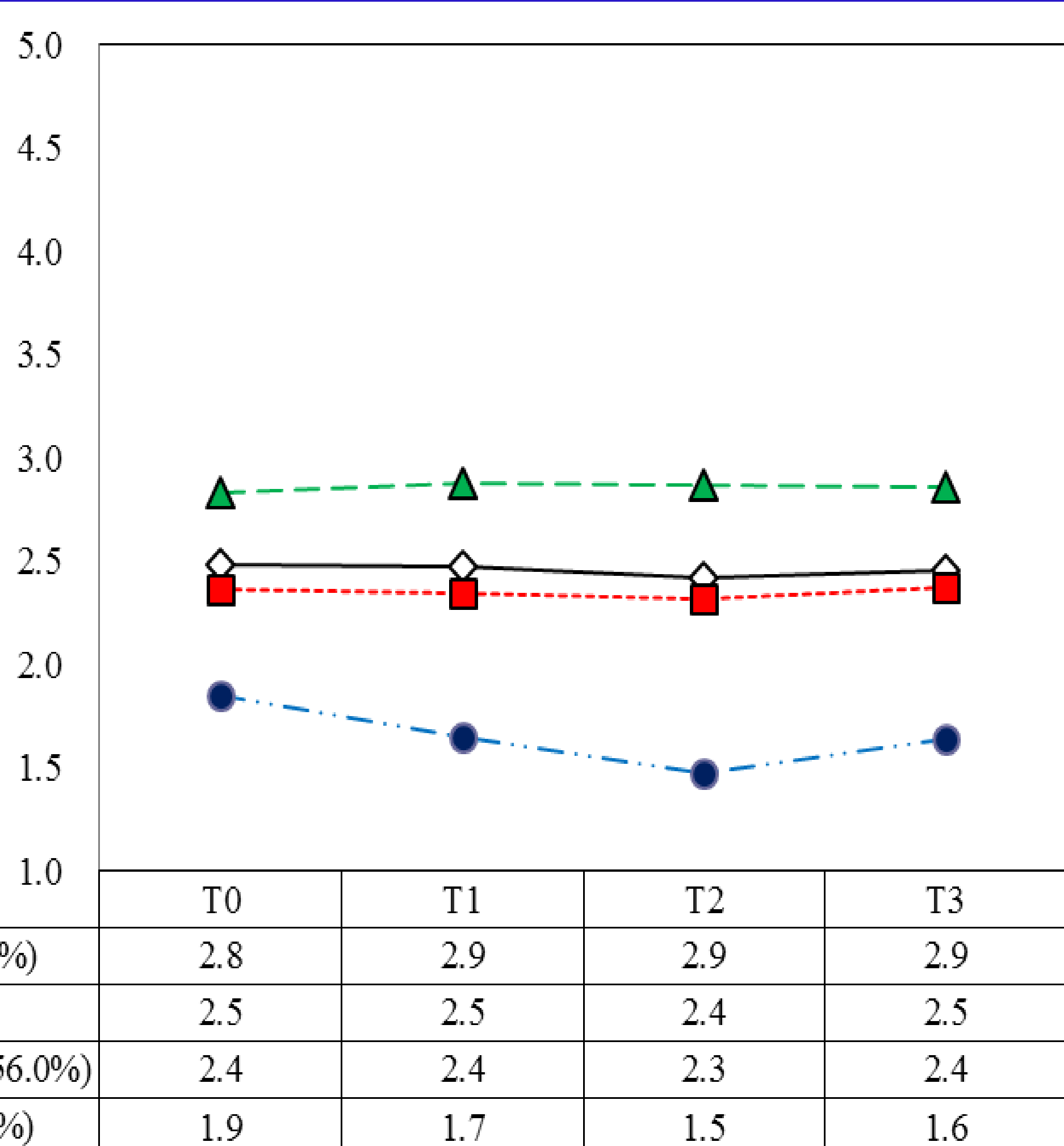


Figure 1 Changes in and sub-patterns of overall caregiver burden