

# The Association of Unmet Needs and HRQoL Among Older Residents in Yi-yang-jie-he Institutions

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## OBJECTIVE

The rise in the aging population poses a significant challenge to long-term care systems across the globe.<sup>1</sup> As more older adults require assistance with daily living, understanding their health-related quality of life (HRQoL) becomes increasingly important. In China, the Yi-yang-jie-he pattern, as a new type of long-term systems, offers a variety of services to promote the healthy aging in China.<sup>2</sup> There is a lack of evidence on the specific care needs of older adults in long term care systems, particularly regarding their HRQoL.

**Our study aims to explore the association of unmet needs and HRQoL among older residents in yi-yang-jie-he institutions.**

## METHODS

A cross-sectional investigation involving 396 older adults in Yi-yang-jie-he institutions was performed. This investigation included the Camberwell Assessment of Need for the Elderly (CANE)<sup>3</sup>, the EQ-5D, and various demographic and health-related assessments. In this study, a binary variable was created to indicate whether participants had experienced at least one unmet need. Pearson chi-test and t-tests were utilized to analyze the correlation between general characteristics and EQ-5D scores. The relationship between HRQoL and unmet needs was estimated using Tobit regression and the Ordered Probit model.

## RESULTS

Tobit regression results showed that unmet care needs reported were negatively associated with the EQ-5D score ( $\beta=-0.064$ ,  $p<0.046$ ) while considering some demographic and health-related characteristics. Further analyses presented that the participants with at least one unmet need reported more severe problems in the EQ5D domain of self-care ( $dy/dx=0.067$ ,  $p=0.033$ ) and usual activities ( $dy/dx=0.070$ ,  $p=0.013$ ).

**Table1 Tobit Regression results for EQ-5D score**

factors	$\beta$	S.E	t	p	95%CI
Unmet needs	-0.064	0.032	-2.00	0.046**	(-0.127, -0.001)
age	0.001	0.002	0.90	0.371	(-0.001, 0.004)
Gender					
female	Ref				
male	0.022	0.030	0.73	0.464	(-0.037, 0.082)
Residence					
rural	Ref				
urban	0.002	0.032	0.07	0.941	(-0.059, 0.067)
Marital status					
single	Ref				
married	0.023	0.035	0.65	0.514	(-0.047, 0.093)
Education level					
Middle school or high	Ref				
Primary school or below	0.035	0.034	1.02	0.311	(-0.032, 0.102)
IADL					
IADL (unimpaired)	Ref				
IADL (impaired)	-0.297	0.051	-5.78	<0.001***	(-0.398, -0.196)
Chronic disease					
No chronic	Ref				
Have chronic	-0.257	0.074	-3.49	0.001	(-0.402, -0.112)
_cons	1.05	0.142	7.42	0.000***	(0.775, 1.333)
Pseudo R2		0.21			
Log likelihood		-125.34			

Notes.

95% CI: 95% confidence interval

\*\*  $p < 0.05$  \*\*\*  $p < 0.01$

**Fig. 1 Associations between the number of four CANE sections and EQ-5D (95%CI)**

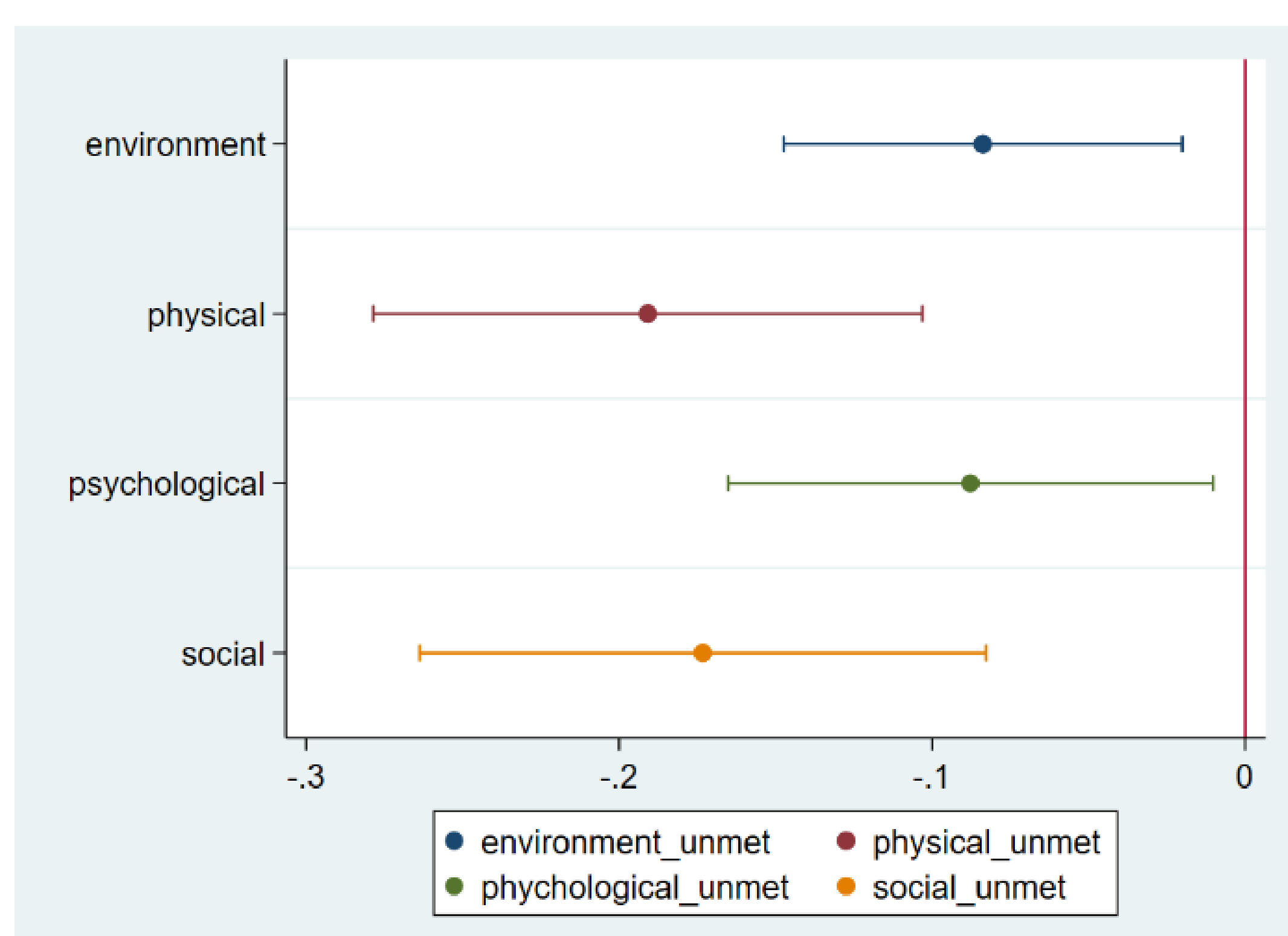


Figure 1 presented  $\beta$  and 95% confidence interval for the Tobit regression of the unmet needs of four CANE categories and EQ-5D. Adjusted for age, gender, residence, marital status, education level, IADL, and chronic disease.

## CONCLUSIONS

Our study showed that older adults with at least one unmet need reported lower HRQoL. Understanding this relationship allows policymakers to promote long-term care services, significantly improving the overall well-being and quality of life for older adults in integrated care settings. By understanding this relationship, further studies, and policymakers can improve long-term care practices, ultimately enhancing the quality of care and life for the aging population.