Cost analysis of the value of informal care for stroke patients, Southern China

Mingjun Gao MA[1*]

[1]Adam Smith Business School, College of Social Science, University of Glasgow, United Kingdom
*Correspondence: Mr Mingjun Gao, MA, Email: Gaomingjunfz@gamil.com;

Introduction:

With the advent of the 2021 census, China is facing a major demographic transition characterised by declining population growth rates and an ageing population, which poses challenges in the healthcare sector. Therefore, this study focuses on the cost of informal stroke care in South China, aiming to fill the geographical research gap regarding the cost of informal care.

Methods:

This study assesses the economic burden of informal caregiving for stroke patients in Southern China, exploring Replacement Cost (RC), Willingness to Pay (WTP), and Willingness to Accept (WTA) values. Data were collected via a web-based survey from primary caregivers, using a structured questionnaire to evaluate caregiving costs through RC and Contingent Valuation Method (CVM). Statistical analyses, including Kolmogorov-Smirnov and Kruskal-Wallis tests, were employed to examine differences in cost perceptions and the impact of demographic and caregiving characteristics on cost values.

Result:

Key findings include the mean WTA at 34 RMB/hour (Std.=18.4), WTP at 37.5 RMB/hour (Std.=17.68), and RC at approximately 34.76 RMB/hour (Std.=2.33). Caregivers' responses displayed considerable variation, with differences between subjective (WTP, WTA) and objective (RC) valuations, suggesting the influence of non-monetary factors like family values on caregiving's perceived value. The regression analysis of the study showed that the greatest positive aspect of WTA value assessment was carer age (β=0.470, p=0.014). The greatest negative effect was satisfaction (β = -0.506, p = 0.000).The greatest positive effect of WTP value was ADL participation (β = 0.362, p = 0.010), and the greatest negative effect was the patient's marital status (β = -0.430, p = 0.005).The greatest positive effect of RC value was caregiver age (β = 0.350, p = 0.016), while the largest negative effect was satisfaction (β = -0.534, p = 0.000).

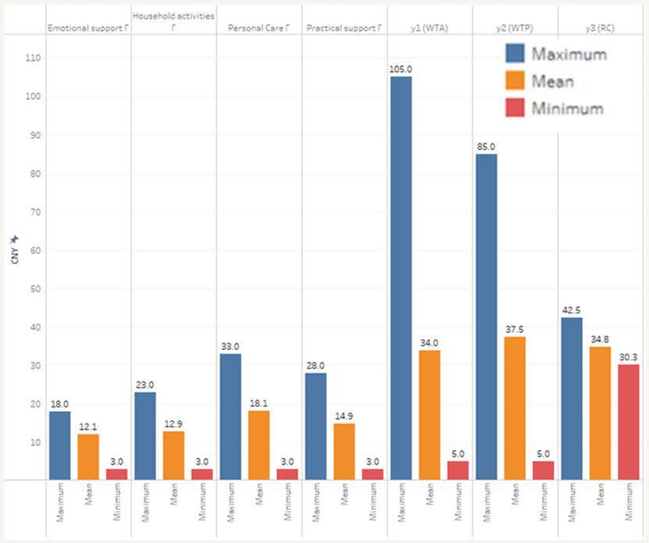

Figure A. Value of care statistics.
Γ. This pertains to the extent of additional time allocated by the caregiver towards providing care compared to the period when the care recipient was in a state of good health.

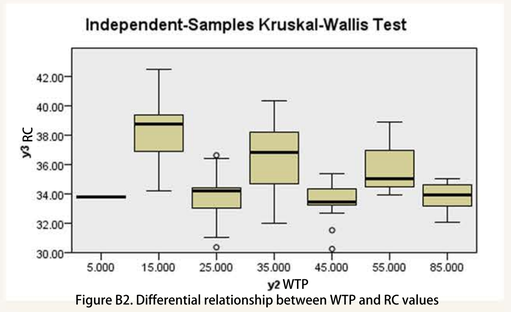

Figure B2. Differential relationship between WTP and RC values

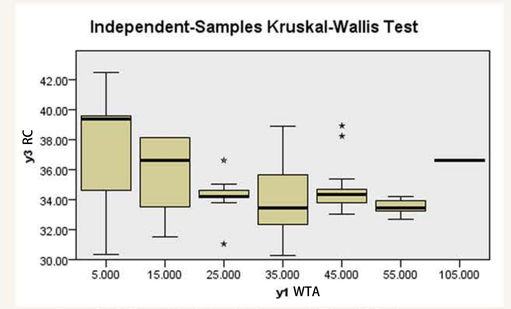

Figure B1. Differential relationship between WTA and RC values

	y1 (WTA)	y2 (WTP)	y3 (RC)
	Coefficient	Coefficient	Coefficient
Gender	-.027	.171*	-.017
Age	.470*	.432	.350**
Marital Status	-.002	-.209**	.016
Income	.223*	-.114	.148
Relation With Patient	.064	.301*	.067
Co-Residence	.314**	.251	.263*
Patient Marital Status	-.071	-.430***	.000
Patient Income	.242***	.345***	.290***
ADL	-.116	.362***	-.086
IADL	-.336***	-.165	-.192**
Satisfied	-.506***	.094	-.534***
Other Formal Care Help	-.398***	-.373***	-.295***
Other Informal Care Help	.202	.137	.314**
(Dislike Work) Daily Grooming	.065	.129	.167*
(Dislike Work) Dress	-.071	-.210*	-.028
(Dislike Work) Shopping	-.052	-.384***	-.074

Figure C. Results of multivariate analysis

Conclusion:

The significant differences found between WTA values and RC values and between WTP values and RC values emphasise the influence of non-monetary factors on the valuation of care, which is in line with behavioural economics which suggests that decision-making is heavily influenced by psychological and emotional factors. Regression analyses identified various factors influencing WTA, WTP, and RC values, suggesting that caregiver and patient income, cohabitation, and participation in activities of daily living (ADLs) are key determinants of caregiving valuation, whereas satisfaction and external assistance with care negatively affect these valuations.