



Health-Related Quality of Life in Individuals with Diagnosed Depression, Self-Reported Depression, and Non-Depressed Using the EQ-5D-5L: A Multi-Center Cross-Sectional Study



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Background & Objectives

- Depression is a prevalent mental health disorder affecting 280 million people globally and significantly impacting their health-related quality of life (HRQoL)^{1,2}.
- However, differences in HRQoL among individuals with clinically diagnosed depression, self-reported depressive symptoms, and no depression remain underexplored.
- This study aimed to examine health utilities and compare HRQoL among the three groups.

Methods

- A multi-center cross-sectional analysis was conducted involving three groups: individuals with diagnosed depression (clinically confirmed by healthcare providers), individuals with self-reported depression and non-depressed individuals (based on SDS scores).
- HRQoL was assessed using the EQ-5D-5L, and scores across the five domains were compared among the groups.
- Differences in EQ-5D-5L utility values among individuals with diagnosed, self-reported, and no depression were analyzed using Tobit regression.

Results

- A total of 796 participants were included from 25 provinces, municipalities, or autonomous regions across China, of which 350 (43.97%) were patients with clinically diagnosed depression, 210 (26.38%) were individuals with self-reported depression, and 236 (29.65%) were non-depressed individuals.
- Individuals without depression had the highest utility score, followed by those with clinically diagnosed depression.
- A significant difference in utility scores was detected among these three groups ($P < 0.001$), indicating that depressive symptoms have a negative impact on HRQoL.

- Compared with non-depressed individuals, those with self-reported or clinically diagnosed depression reported more problems across the five core dimensions of the EQ-5D-5L: mobility, self-care, usual activities, pain/discomfort, and anxiety/depression ($P < 0.001$).
- Tobit regression analysis indicated that, after adjusting for covariates, individuals with self-reported and clinically diagnosed depression had significantly lower health utility scores compared to those without depression. Moreover, utility scores were higher in clinically diagnosed individuals than in self-reported individuals.

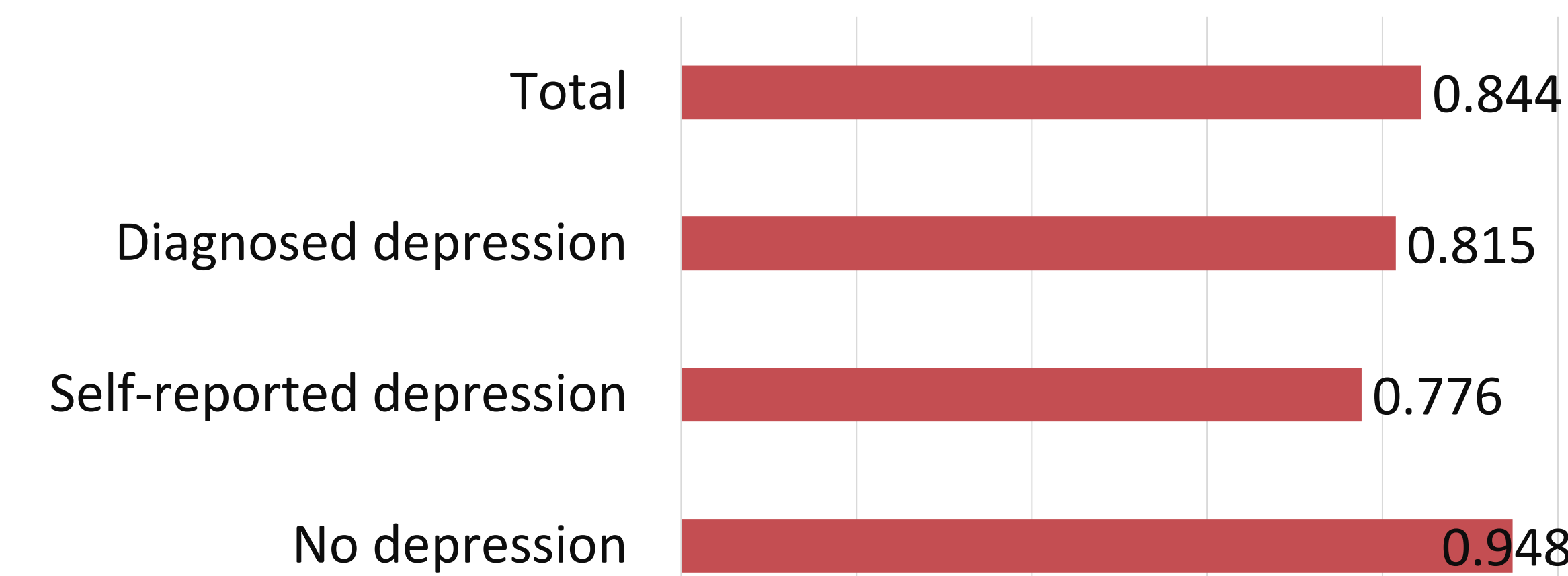


Figure 1 Mean EQ-5D-5L Utility Values Across Depression Groups

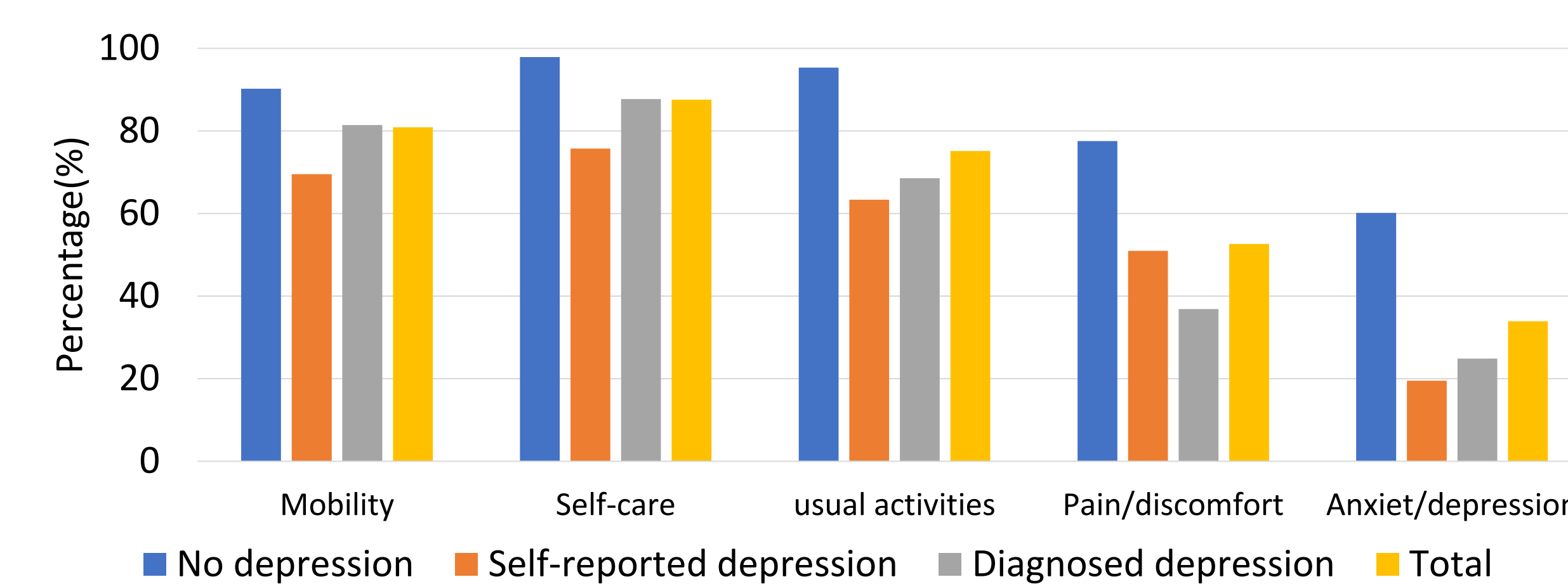


Figure 2 Proportion Reporting 'No Problems' by Depression Groups

Table 2 Marginal Effects From Tobit Regression

Depression groups	Contrast	SE	95% CI	P value
Self-reported vs No depression	-0.184	0.032	-0.246 -0.122	<0.001
Diagnosed vs No depression	-0.089	0.039	-0.165 -0.013	0.021
Diagnosed vs Self-reported	0.095	0.035	0.026 0.163	0.007

Table 1 Respondents characteristics

Characteristics		No depression		Self-reported depression		Diagnosed depression		Total	
		n	%	n	%	n	%	n	%
Age	Mean \pm SD	27.64 \pm 7.30		27.29 \pm 7.53		51.44 \pm 19.95		38.01 \pm 18.63	
	Range	19-52		17-66		16-89		16-89	
Gender	Male	83	35.17	91	43.33	112	32.09	286	35.97
	Female	153	64.83	119	56.67	237	67.91	509	64.03
Residence	Urban	173	73.31	132	62.86	325	92.86	630	79.15
	Rural	63	26.69	78	37.14	25	7.14	166	20.85
Region	Eastern	179	75.85	148	71.5	338	83.86	665	83.86
	Central	32	13.56	41	19.81	11	10.59	84	10.59
	Western	25	10.59	18	8.7	1	5.55	44	5.55
Marital status	Single	185	78.39	153	72.86	90	25.71	428	53.77
	Married	50	21.19	49	23.33	216	61.71	315	39.57
	Widowed/divorced	1	0.42	8	3.81	44	12.57	53	6.66
Education	Senior high school or below	6	2.54	29	13.81	209	59.89	244	30.69
	Diploma or bachelor's degree	153	64.83	122	58.1	126	36.1	401	50.44
	Master's degree or above	77	32.63	59	28.1	14	4.01	150	18.87
Occupation	Public institutions or Company employee	92	38.98	62	29.52	53	15.19	207	26.04
	Students	117	49.58	88	41.9	50	14.33	255	32.08
	Retirees	1	0.42	2	0.95	162	46.42	165	20.75
	Unemployment	8	3.39	14	6.67	16	4.58	38	4.78
	Others	18	7.63	44	20.95	68	19.48	130	16.35
	Individual annual income (CNY)								
	$\leq 20,000$	12	10.08	18	14.75	74	21.26	104	17.66
	20,000-60,000	12	10.08	29	23.77	144	41.38	185	31.41
	60,000-100,000	21	17.65	25	20.49	63	18.1	109	18.51
	100,000-140,000	18	15.13	21	17.21	21	6.03	60	10.19
	140,000-180,000	27	22.69	11	9.02	24	6.9	62	10.53
	> 180,000	29	24.37	18	14.75	22	6.32	69	11.71
Total		236	100.00	210	100.00	350	100.00	796	100.00

Conclusion

- This study demonstrates that depressive symptoms, whether clinically diagnosed or self-reported, significantly impair HRQoL.
- Notably, self-reported depressive symptoms were associated with worse health utility scores than clinically diagnosed depression.

References

- WHO. Depressive disorder. 2023. <https://www.who.int/news-room/fact-sheets/detail/depression>.
- Kolovos S, Bosmans JE, van Dongen JM, et al. Utility scores for different health states related to depression: individual participant data analysis. Qual Life Res. 2017;26(7):1649–1658.

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