



Perceived Stress and Purpose in Life in Relation to Cognitive Performance and Functional Severity Among Persons with Dementia

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Key takeaway: The purpose of life and perceived stress may not significantly act as protective factors for cognitive performance in individuals after MCI or dementia has been clinically established.

INTRODUCTION

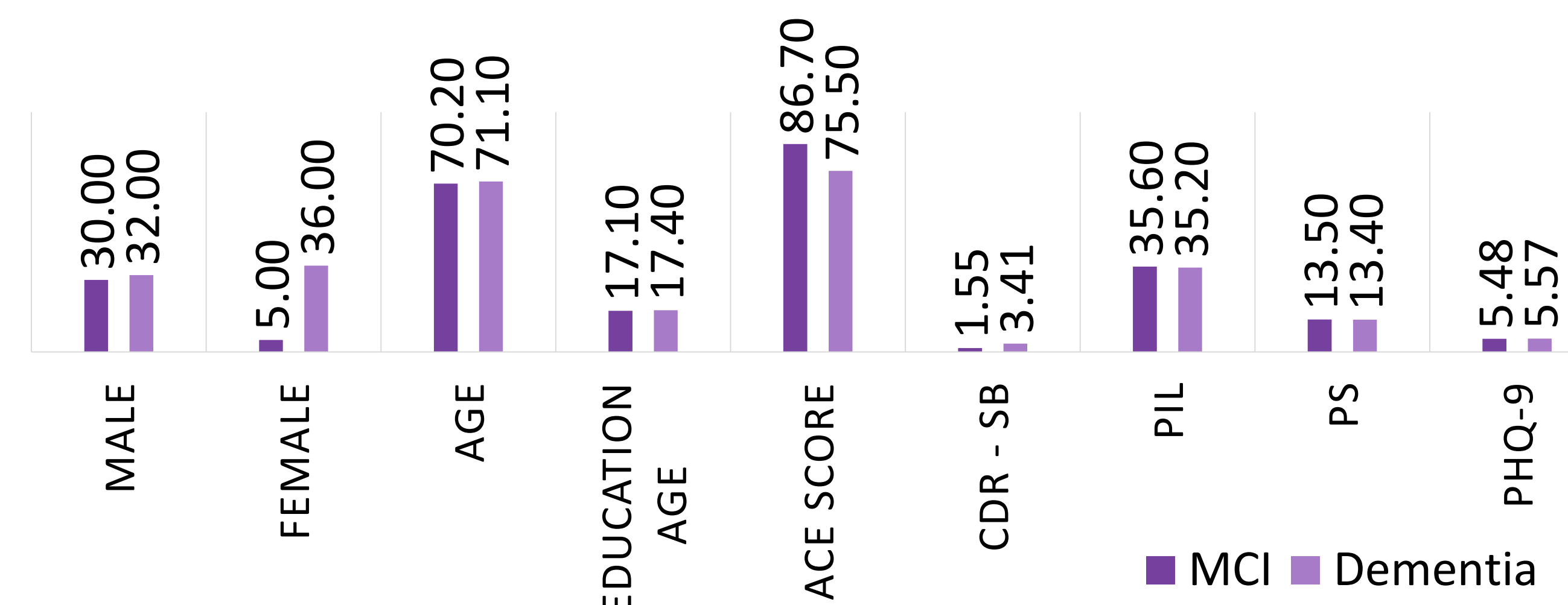
An estimated 8.8 million Indians over 60 suffer from dementia, with Kerala accounting for 8.27% of cases. Along with neuropathology, psychosocial factors such as perceived stress (PS) and purpose in life (PIL) also influence this condition and therefore require a thorough understanding of its effects. However, most evidence comes from community-based and at-risk populations, and there is limited knowledge about how these factors influence individuals after MCI or dementia has been clinically established.

METHODS

Data were obtained from 103 participants aged ≥ 55 years, with a clinical suspicion or confirmed diagnosis of dementia, MCI or related neurocognitive conditions, who were attending the memory clinics or referred from Neurology IPD. **Cognitive performance and functional severity were assessed using Addenbrooke's Cognitive Examination III (ACE-III) and Clinical Dementia Rating-sum of boxes (CDR-SB), respectively. The Purpose in Life (PIL) scale, Cohen Perceived Stress Scale (PSS-10), Patient Health Questionnaire-9 (PHQ-9), and the 36-Item Short-Form Survey Instrument (SF-36) were used to evaluate psychosocial factors.** Correlational analysis was conducted separately within the MCI and dementia groups

RESULTS

MEAN COMPARISON BETWEEN MCI AND DEMENTIA GROUPS



- It was observed that neither PS nor PIL showed a statistically significant correlation with ACE and CDR-SB scores in either the MCI or Dementia groups. A moderate and mild negative correlation was observed between PS and PIL among the MCI ($r = -0.48$, $p=0.003$) and Dementia ($r = -0.29$, $p = 0.016$) group respectively.
- In the MCI group, PS and PIL were not significantly correlated with PHQ scores, whereas in the dementia group, PHQ had a moderate positive correlation with PS ($r = 0.397$, $p = <.001$) and a moderate negative correlation with PIL ($r = -0.344$, $p = 0.004$).

Table showing the relationship of PSS and POL with ACE and CDR-SB

		MCI		DEMENTIA	
		ACE	CDR-SB	ACE	CDR-SB
PIL	r	-0.18	0.30	0.22	-0.08
	p	0.29	0.08	0.06	0.50
PS	r	0.002	-0.22	-0.04	-0.09
	p	0.99	0.21	0.72	0.47

Table showing the relationship of PSS and POL with SF-36

Domain		PIL (MCI)	PIL (Dementia)	PS (MCI)	PS (Dementia)
Energy	r	0.478*	0.269*	-0.613*	-0.421*
	p	0.004	0.026	<.001	<.001
Emotional well-being	r	0.306	0.368*	-0.746*	-0.605*
	p	0.074	0.002	<.001	<.001
Social functioning	r	0.079	0.164	-0.334*	-0.28*
	p	0.653	0.181	0.05	0.021
Pain	r	0.242	0.133	-0.161	-0.452*
	p	0.161	0.279	0.356	<.001
Role limitation (emotional)	r	0.279	0.108	-0.616*	-0.242*
	p	0.105	0.328	<.001	0.046
General Health	r	0.419*	0.395*	-0.567*	-0.313*
	p	0.012	<.001	<.001	0.009

CONCLUSION

The results indicate that PS and PIL were not directly correlated with cognitive performance or clinical severity in individuals with MCI or dementia. However, they are found to contribute to depressive symptoms and overall quality of life.

Although PS and PIL are associated with a reduced risk of cognitive decline, our findings suggest that their protective effects may weaken after the onset of neurodegenerative changes.

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