Predicting Caregiver Burden From Patient Functional Ability and Mood

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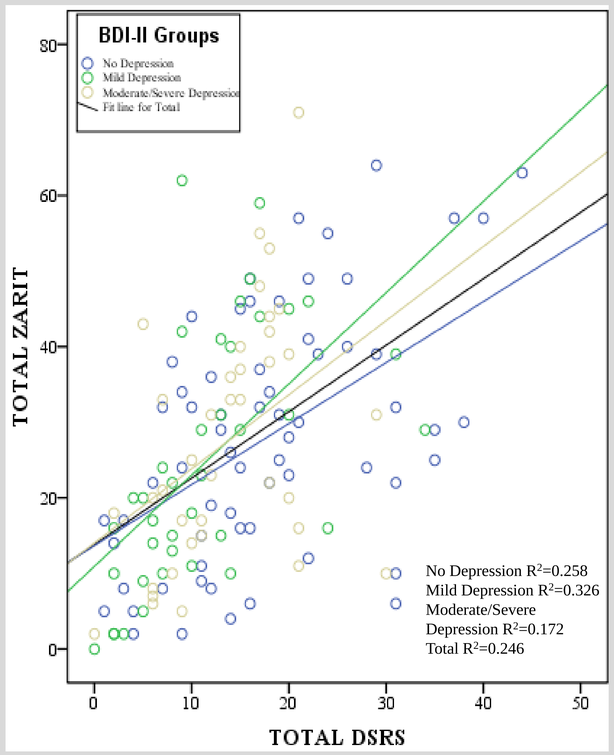
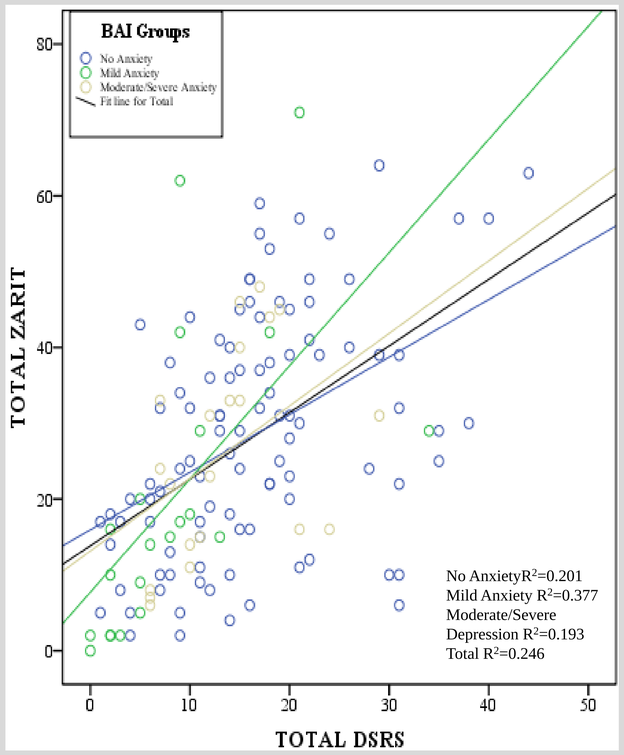
Introduction

There is a tenuous relationship between a patient's functional ability and their caregiver's level of burden. Burden is strongly associated with caregiver report of functional ability, but there does not appear to be a perfect relationship between the two factors. Additional factors, such as caregiver mood, have been shown to further explain the relationship (Razani et al., 2007). In the present study, patient mood was predicted to explain additional variance in the relationship between caregiver burden and patient functioning.

Methods

- 142 Veterans (134 males, 8 females), referred from Neurological services for neuropsychological assessment, were included.
- Mean age for the sample was 68.7 years with an average of 11.8 years of education. The sample included ethnic diversity (Caucasian: n=100, African-American: n=29, and Hispanic: n=13).
- Patients completed the Beck Depression Inventory-II (BDI-II) and the Beck Anxiety Inventory (BAI). If there was no indication of affective distress during the clinical interview, then the patient was categorized as having 'none' for their mood score.
- Scores on the BDI-II were categorized as mild (≤14) or moderate/severe (>15).
- Score on the BAI were categorized as mild (≤10) or moderate/severe (>11).
- All caregivers completed the Zarit Burden Interview (ZBI) and the Dementia Severity Rating Scale (DSRS) on the day of the patient's neuropsychological evaluation.
- Multiple regression analyses were completed to assess whether patient mood in addition to level of patient functioning predicts caregiver burden. Main effects were evaluated in addition to the interaction of patient functioning and mood.





MODELS	REGRESSION EQUATION	R^2	Model *p*	Factors *p*<.05:
DSRS Main Effect	Zarit = 13.839 + (0.879*DSRS)	0.246	<.01	DSRS
BDI Main Effect	Zarit = 27.326 - (0.568*BDI)	0.001	>.05	--
BAI Main Effect	Zarit = 27.894 – (2.318*BAI)	0.011	>.05	--
3 Main Effects	Zarit = 12.085 + (0.898*DSRS) + (4.363*BDI_mild) + (4.636*BDI_severe) - (3.85*BAI_mild) + (2.716*BAI_severe)	0.259	<.01	DSRS
3 Main Effects and Interactions of Mood (BDI and BAI) with Symptoms Severity (DSRS)	Zarit = 13.698 + (0.807*DSRS) + (5.582*BDI_mild) + (4.2266*BDI_severe) - (11.39*BAI_mild) + (5.167*BAI_severe) + (0.086*DSRS*BDI_mild) - (0.015*DSRS*BDI_severe) + (0.763*DSRS*BAI_mild) + (0.184*DSRS*BAI_severe)	0.274	<.01	DSRS

	Mean	SD
Zarit	26.87	16.27
DSRS	14.82	9.18
BDI	8.27	10.48
BAI	4.60	9.46

	Mood Severity Groups		
	None	**Mild**	**Moderate/ Severe**
BDI-II	*M*=0 *n*=65	*M*=7.97 (*SD*=4.24) *n*=39	*M*=22.71 (*SD*=8.11) *n*=38
BAI	*M*=0 *n*=100	*M*=6.10 (*SD*=2.86) *n*=21	*M*=25.00 (*SD*=8.80) *n*=21

Results and Conclusions

- A model with the DSRS, BDI-II, and BAI significantly predicted ZBI scores (*p*<.01) and accounted for 25.9% of the variance, although depression (*p*>.05) and anxiety (*p*>.05) did not have significant main effects on burden.
- Inclusion of interactions among the DSRS and each mood factor continued to produce a significant model (*p*<.01) and accounted for 27.4% of the variance, although the DSRS (*p*<.01) continued to be the only significant predictor of burden included in the model.
- Patient mood does not appear to have a notable effect on caregiver burden, above and beyond what may be accounted for within caregiver report of functional ability.
- Caregiver report on the DSRS may account for affective symptoms of patients in addition to cognitive and functional symptoms related to dementia.