

# Depression Disorder Impairing Vulnerable Elders' IADLs

How much does depression impair IADLs as measured

with computerized Vulnerable Elders Survey (VES) and Geriatric Depression Scale (GDS)

Dupont Linhoff Patient Assessment original research with electronic tablets at long-term care and independent living facilities

## Background

Objective assessment of depression disorder's affect on IADLs in multiple settings: senior centers, assisted living and long-term care to decrease risk factors affecting quality-of-life.

The Vulnerable Elders Survey developed by RAND, emphasizes functioning of individuals within their environment. Depression significantly increases morbidity and mortality.

Statistical correlations of VES and GDS data using baseline screening was conducted at long-term care facilities and independent-living facilities.

## Objective

To quickly improve rates of identification with vulnerable elders whose quality-of-life is affected by depression in senior centers, senior housing or congregate settings, assisted living and long-term care settings.

Benchmark population reports have value to the industry and tangible evidence for grant funding.

## Subsequent analysis

Individual items indicated that certain IADLs were more strongly associated with geriatric depression.

These three VES items significantly correlate with GDS depression,  $p < .01$ .

1. Inability in writing, handling and grasping small objects, ( $r = .655$ )
2. Walking a quarter of a mile, ( $r = .378$ )
3. Doing heavy housework such as scrubbing floors or washing windows, ( $r = .392$ )

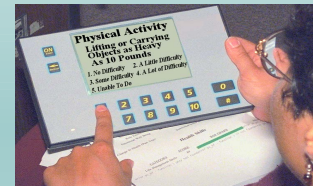
Further longitudinal research with VES/GDS patients would provide an opportunity to examine the extent to which lower VES scores and/or individual VES items may impact subsequent GDS scores.

For instance, improving VES-walking a quarter of a mile changing the GDS depression

## Methods

Patients self-assess the Vulnerable Elders Survey (VES) and Geriatric Depression Scale (GDS) concurrently on hand-held tablets.

Clinicians and Medical Assistants receive both the VES and GDS scored and printed reports.



Residents/patients self-assess in minutes. Data, sent by web, is compiled HIPAA compliant for instant reports alerting staff of in and out-of-range scores.

## Research Results

Initial analysis of the relation between GDS total scores and VES daily-living total scores shows they are correlated (VES total score  $r = .50$ ,  $p < .01$ ,  $n = 69$ ).

This finding indicates that GDS and VES scores are associated with one another, and suggests that effective treatment resulting in lower scores on one scale should also lower scores on the other scale.

Correlation of VES dimensions to GDS	VES Correlation Vulnerable Elders Survey n=69	GDS Correlation Geriatric Depression Survey n=60
VES Physical Activity Difficulty	<b>.566**</b>	<b>.406**</b>
VES Physical Condition	<b>.899**</b>	<b>.460**</b>
VES Total Score	1.000	<b>.499**</b>

Pearson Correlations - Significant. = (2-tailed) -N=60/69, Correlation range 1 to -1

	Descriptive Statistics			
	Minimum	Maximum	Mean	Std. Deviation
Age	42	99	72.93	14.284
Physical Activity Difficulty Score	0	2	.64	.822
Physical Condition Difficulty Score	0	4	1.16	1.828
VES Total Score*	0	9	2.87	3.029
Geriatric Depression Score (GDS)	0	13	1.95	3.270
Gender (female)			79%	

\* A VES Total Score of 3 or more points defines a vulnerable elder.

## References

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