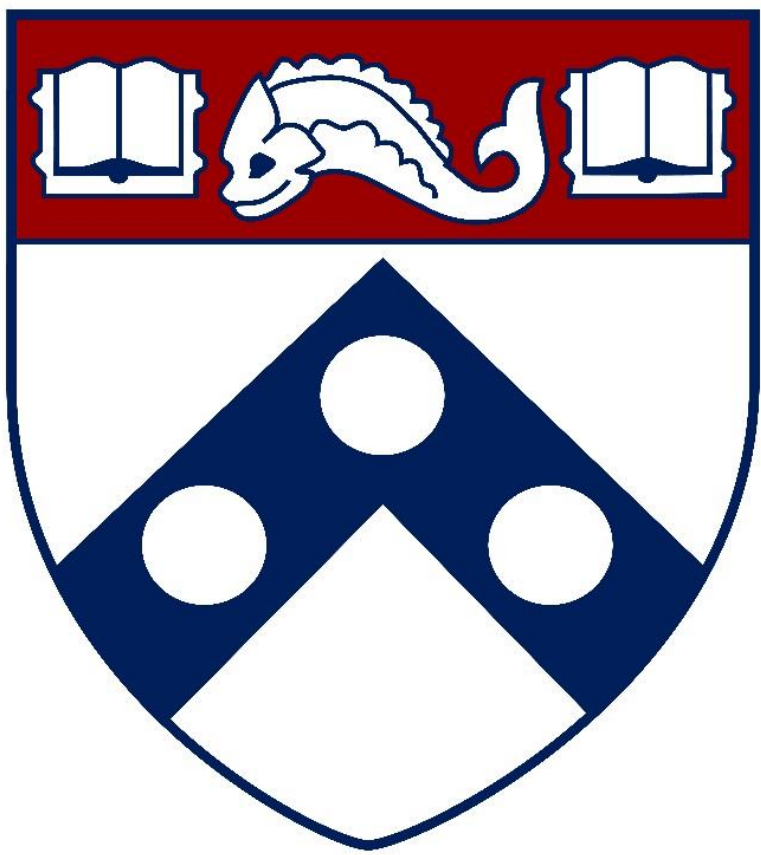


Depressive Symptoms among Women and Men after Left Ventricular Assist Device

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BACKGROUND

- Prior studies have reported depression among patients post-left ventricular assist device (LVAD) implant.
- We expand upon this knowledge by reporting the degree of depressive symptoms in community-dwelling LVAD patients and associations with age, gender and marriage status.

METHODS

- Cross-sectional, prospective, ongoing multi-center descriptive study of patients at 5 geographically diverse sites who completed depression screening with the PHQ9 as part of a comprehensive assessment of quality of life in the ongoing Validate QOLVAD study.
- Statistical analyses performed included the Student’s t-test for continuous data comparison and the Chi-Square test for categorical data comparison.

RESULTS

- From July 2014 to June 2017, 113 LVAD patients were enrolled (mean age 59 ± 13, 82% male) and were primarily implanted with a HeartMate II (79%). Patients self-reported they were primarily White (80%) or African American (18%) with 69% married or living in a marriage-like relationship, 17% divorced, 10% never married, and 4% widowed.
- Purposes of LVAD implant were bridge to transplant (42%), destination therapy (38%), or bridge to decision (14%) or other (6%). Preoperative INTERMACS score ranged from 1 to 4, with a majority on inotropic support with scores of 3 (42%) or 2 (32%).
- PHQ9 questionnaires (n=111) were completed at median time of 48 weeks (20-104, 25th-75th percentile) post implant.
- Completed PHQ9 scores ranged from “no symptoms” to “severe,” with a mean score of 4.1 ± 4.5 and median score of 2.
- Among all patients, 34% screened positive for depressive symptoms, which included mild (21.6%), moderate (9%), moderately severe (2.7%), and severe (0.9%).
- No significant associations were noted for depressive symptoms and age or marriage status; however, a significant association was noted with sex as women reported moderate, moderately severe, or severe depression scores 3 times more frequently than men (25% vs 8%; p=0.025).

DISCLOSURES

J. Marble: None. **R. Garberich:** None. **P. Eckman:** C; C; Abbott Laboratories, Medtronic. **C.E. Weaver:** None. **S. Joseph:** S; C; St. Jude Medical. **S. Carey:** E; C; Abbott. **S. Hall:** S; C; Abbott, Abiomed. S; C; CareDx, Novartis. **J. Cowger:** G; C; Abbott, Medtronic/HeartWare. T; C; Abbott < \$3000. O; C; Medtronic/HeartWare. **S.P. Chaudhry:** None. **S. Schroeder:** None. **E.Y. Birati:** C; C; Luitpold Pharmaceuticals, Inc.. **M. Soni:** None. **B.A. Hoglund:** O; C; Minnesota Nurses Association Foundation. **K.E. Sandau:** G; C; Minneapolis Heart Institute to MHI Foundation, Abbott-Northwestern Hospital Foundation to MHI Foundation. G; C; Minnesota Nurses Association Foundation.

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TABLES

Table 1. Patient PHQ9 Scores

	Number of Responses	Characteristic Description
Depression Severity		
None (0-4), (%)	111	73 (65.8)
Mild (5-9), (%)		24 (21.6)
Moderate (10-14), (%)		10 (9.0)
Moderately Severe (15-19), (%)		3 (2.7)
Severe (20-27), (%)		1 (0.9)
Little interest or pleasure in doing things		
Nearly every day, (%)	110	5 (4.6)
More than half the days, (%)		10 (9.1)
Several days, (%)		20 (18.2)
Not at all, (%)		75 (68.2)
Feeling down, depressed, or hopeless		
Nearly every day, (%)	110	2 (1.8)
More than half the days, (%)		7 (6.4)
Several days, (%)		25 (22.7)
Not at all, (%)		76 (69.1)
Trouble falling or staying asleep, or sleeping too much		
Nearly every day, (%)	111	11 (9.9)
More than half the days, (%)		13 (11.7)
Several days, (%)		29 (26.1)
Not at all, (%)		58 (52.3)
Feeling tired or having little energy		
Nearly every day, (%)	109	4 (3.7)
More than half the days, (%)		14 (12.8)
Several days, (%)		48 (39.5)
Not at all, (%)		43 (39.5)
Poor appetite or overeating		
Nearly every day, (%)	111	9 (8.1)
More than half the days, (%)		6 (5.4)
Several days, (%)		23 (20.7)
Not at all, (%)		73 (65.8)
Feeling bad about yourself		
Nearly every day, (%)	110	2 (1.8)
More than half the days, (%)		9 (8.2)
Several days, (%)		18 (16.4)
Not at all, (%)		81 (73.6)
Trouble concentrating on things, such as reading the newspaper or watching TV		
Nearly every day, (%)	111	3 (2.7)
More than half the days, (%)		7 (6.3)
Several days, (%)		15 (13.5)
Not at all, (%)		86 (77.5)
Moving or speaking so slowly that other people could have noticed		
Nearly every day, (%)	111	1 (0.9)
More than half the days, (%)		4 (3.6)
Several days, (%)		16 (14.4)
Not at all, (%)		90 (81.1)
Thoughts that you would better off dead or of hurting yourself in some form		
Nearly every day, (%)	111	0 (0)
More than half the days, (%)		0 (0)
Several days, (%)		8 (7.2)
Not at all, (%)		103 (92.8)
If you check off any problems, how difficult have these problems been?		
Extremely difficult, (%)	61	1 (1.6)
Very difficult, (%)		1 (1.6)
Somewhat difficult, (%)		30 (49.2)
Not difficult at all, (%)		29 (47.5)

Table 2. Associations Between Patient Demographics and PHQ9 Scores

	PHQ9 Total
Age (Years), mean ± SD	P = 0.82
Gender	
Male, (%)	3.66 ± 3.86
Female, (%)	6.20 ± 6.49
p-Value	p = 0.022
Marriage Status	
Never married, (%)	p = 0.33
Married, (%)	
Living in marriage-like relationship, (%)	
Divorced or Separated, (%)	
Widowed, (%)	
VAD Purpose	
Bridge to Decision, (%)	p = 0.41
Bridge to Transplant, (%)	
Destination Therapy, (%)	
Other, (%)	
Weeks from Initial Implant	p = 0.52

Note: Student’s t-test for continuous data comparison and the Chi-Square for categorical data comparison.

CONCLUSION

- In this sample, women reported higher depressive symptoms than men, highlighting a potential need for further study. However, due to the high variation in range of scores within gender groupings, clinicians are reminded of the uniqueness of each LVAD patient and the benefit of routine screening for both women and men. Depressive symptoms can occur post-implant regardless of age; screening can identify patients who need further support and intervention.