

# Factors Associated with Patient Activation in Peripheral Artery Disease

NQUIRES

Maggie Reilly<sup>1,2</sup>, Megan Alagna<sup>1</sup>, Cassandra Iroz<sup>2</sup>, Alexander Lundberg<sup>3</sup>, Emily Ho<sup>4</sup>, Andrew W. Hoel<sup>1</sup>, Ashley Vavra<sup>1</sup>, Julie K. Johnson<sup>2</sup>, Karen J. Ho<sup>1</sup>

<sup>1</sup>Northwestern Medicine Department of Surgery, <sup>2</sup>Northwestern NQUIRES, <sup>3</sup>Northwestern Department of Emergency Medicine, <sup>4</sup>Northwestern Medicine Department of Medical Social Sciences

## **Background**

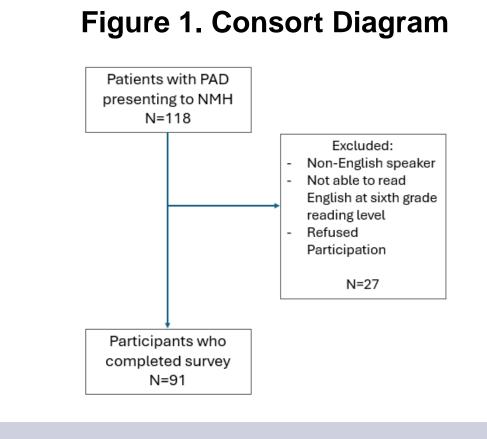
- Peripheral artery disease (PAD) is a chronic, incurable condition impacted by self-care and risk-modifying behaviors
- Patient activation, or the knowledge and skills to manage one's health, contributes to disease-modifying behaviors

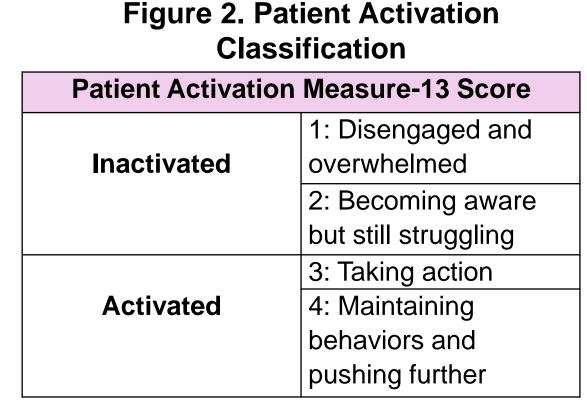
## **Objectives**

To identify factors associated with activation in patients with PAD and identify which subsets of patients may require more intensive disease counseling

#### Methods

- In this single-center study of patients with PAD, participants completed an 87 item paper survey of demographic information, PAD knowledge, activation level, and an assessment of functional health literacy (FHL)
  - Knowledge score calculated as number of correctly answered questions
  - Activation measured using Patient Activation Measure 13 and scored as "Activated" or "Inactivated"
  - Functional Health Literacy (FHL) was measured using short Test of Functional Health Literacy in Adults and scored as "Adequate" or "Inadequate/Marginal" FHL
- Bivariable analysis and multivariable logistic regression analysis of associations with activation were completed





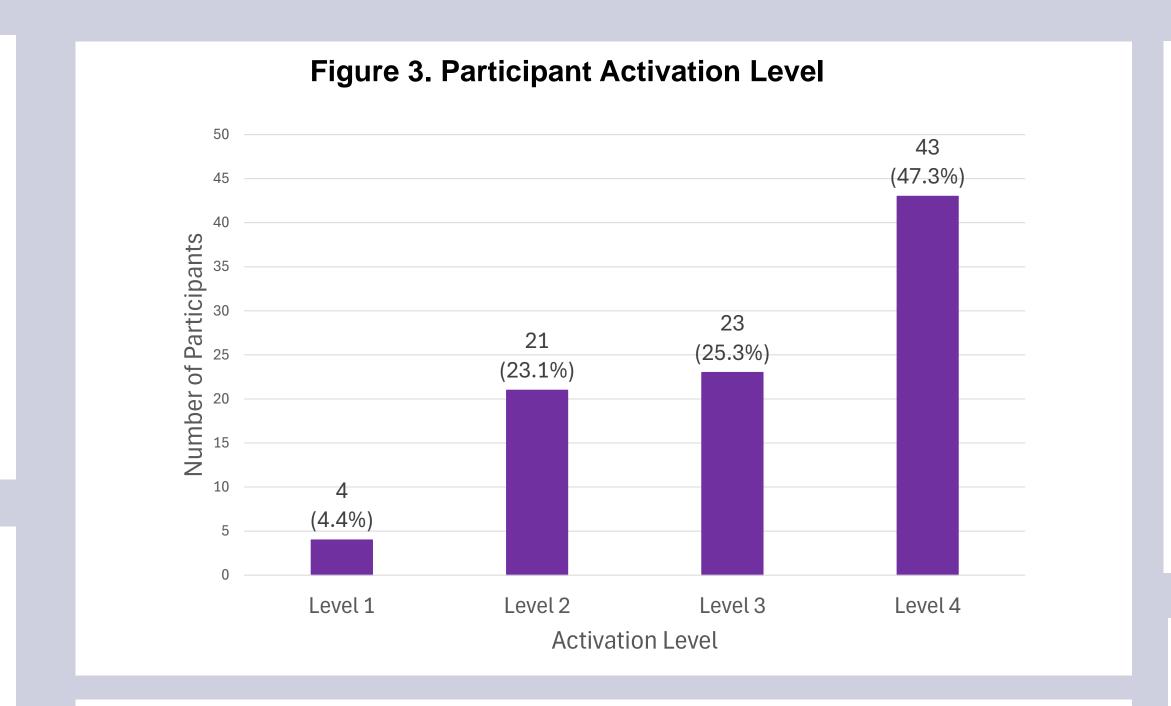
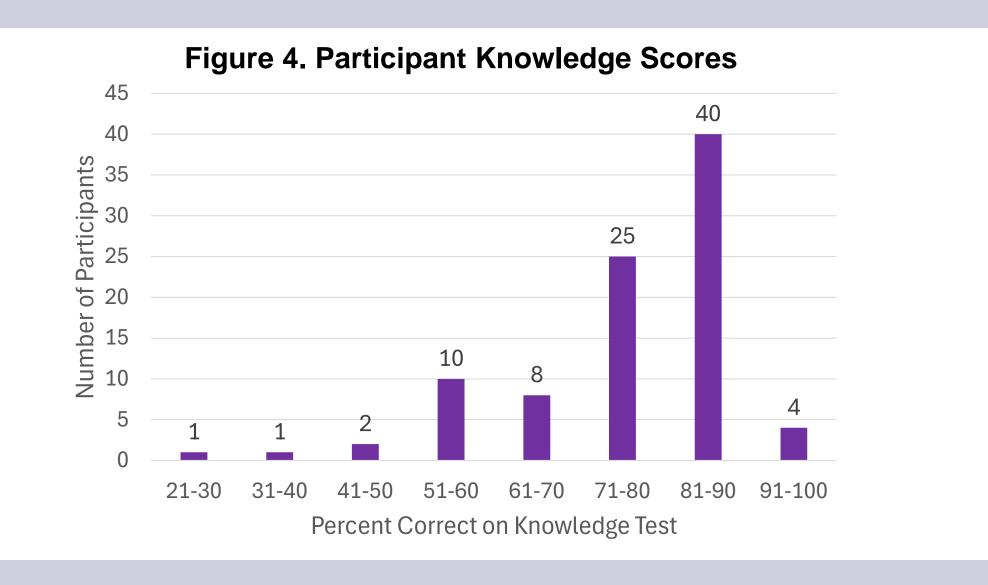


Table 1. Multivariable logistic regression of factors associated with Activation

Demographic/ Socioeconomic Factors	Odds Ratio	95% Confidence Interval	P Value
Knowledge Score	1.13	1.0-1.3	0.045
Non-White Race	0.51	0.1-2.0	0.337
Age	0.94	0.89-0.99	0.036
Income - Unsure/Prefer not to answer - < \$49,999 - \$50,000 - 100,000 - > \$100,000	0.33 <b>0.09</b> 0.45 REF	0.3-3.7 <b>0.01-0.84</b> 0.04-5.5	0.369 <b>0.035</b> 0.53
<ul> <li>Time Since PAD Diagnosis</li> <li>Not sure</li> <li>&lt; 5 years</li> <li>&gt; 5 years</li> <li>I do not think I have PAD</li> </ul>	4.1 1.3 REF 1.2	0.30-55.3 0.36-5.0 0.14-11.1	0.294 0.66 0.84



### Results

- Of 91 participants with a 77.2% response rate, most participants (51.7%) had chronic-limb threatening ischemia and 17.6% had a prior major amputation
- While 21.3% of participants had inadequate/marginal FHL and 24.4% were unaware of their PAD diagnosis, most participants were activated (**Figure 3**) and the average knowledge score was 79.1% (**Figure 4**)
- On bivariable analysis, non-White race, low income, non-ambulatory status, low knowledge level, and history of endovascular intervention were associated with a status of Inactivated
- On multivariable analysis, knowledge score, age, and income were independently associated with activation status (Table 1)

#### Conclusions

- Patients with PAD overall demonstrated adequate FHL, PAD knowledge, and activation
- However, 27.5% were inactivated, 24.4% were unaware of their diagnosis, and 21.3% had poor health literacy
- PAD knowledge, age, and income were independently associated with activation, indicating that these may be used to identify subsets of patients who will benefit from more intense counseling and interventions