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Objective

- Peripheral artery disease (PAD) is a chronic, incurable condition
- Patient **activation**, or the knowledge and skills to manage one's health, contributes to disease-modifying behaviors and disease management
- Relationships between activation and readiness for behavior change (RBCh) in patients with PAD are not well understood

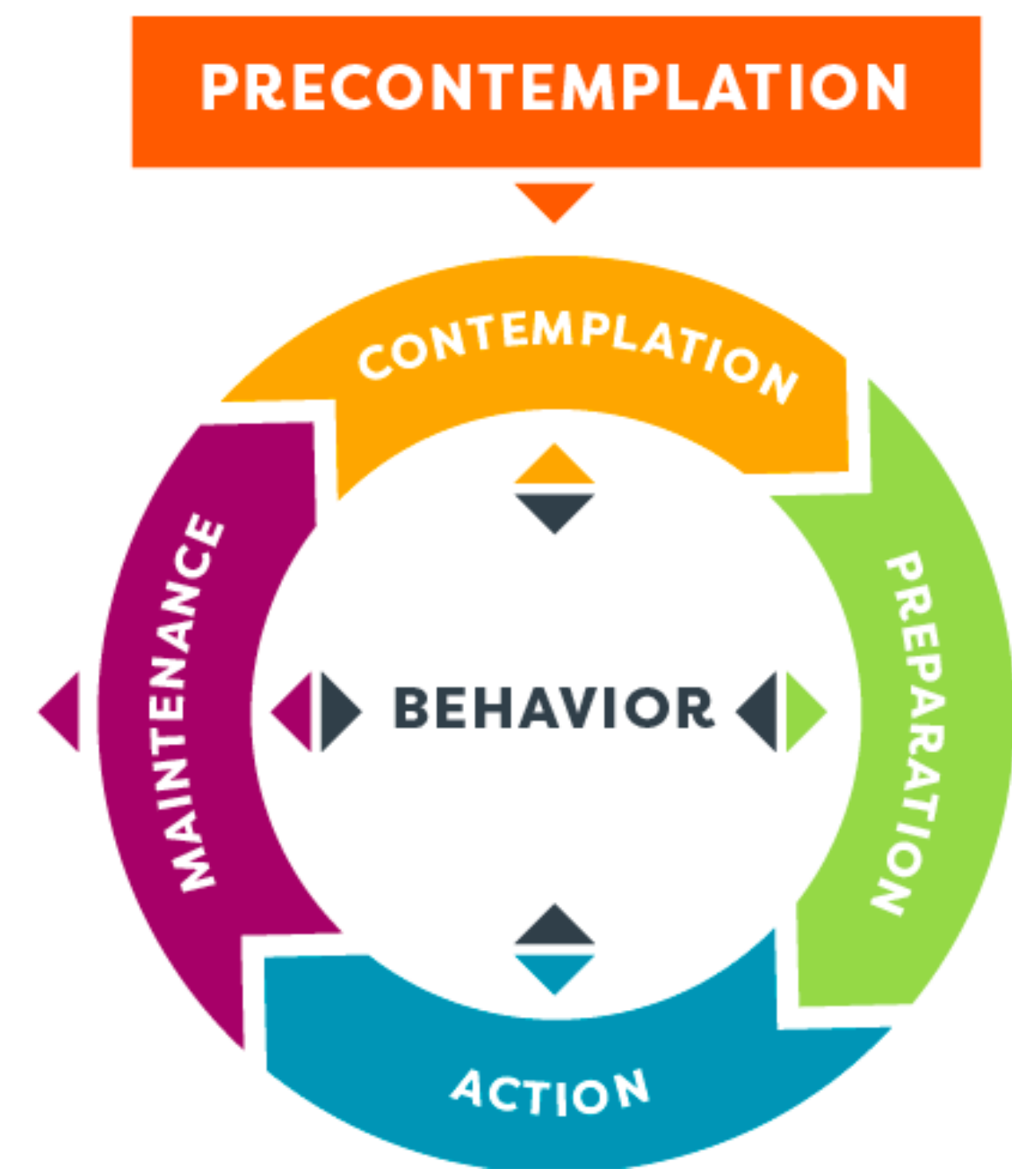


Figure 1. RBCh based on Transtheoretical Model
<https://r1learning.com/blog/2020/5-stages-of-change>

Methods

- In this single-center study of patients with PAD, participants completed an 87 - item paper survey:
 - Demographic information
 - PAD knowledge
 - Activation level using Patient Activation Measure-13 (PAM-13)
 - Assessment of functional health literacy (FHL) using the Short Test of Functional Health Literacy (S-TOFHLA)
 - RBCh for smoking cessation, physical exercise, medication compliance, diet
- Participants were dichotomized based on PAM-13 score as "Activated" or "Inactivated" (Figure 3)
 - Participants were also scored as "Adequate" or "Low" FHL

Figure 2. Consort Diagram

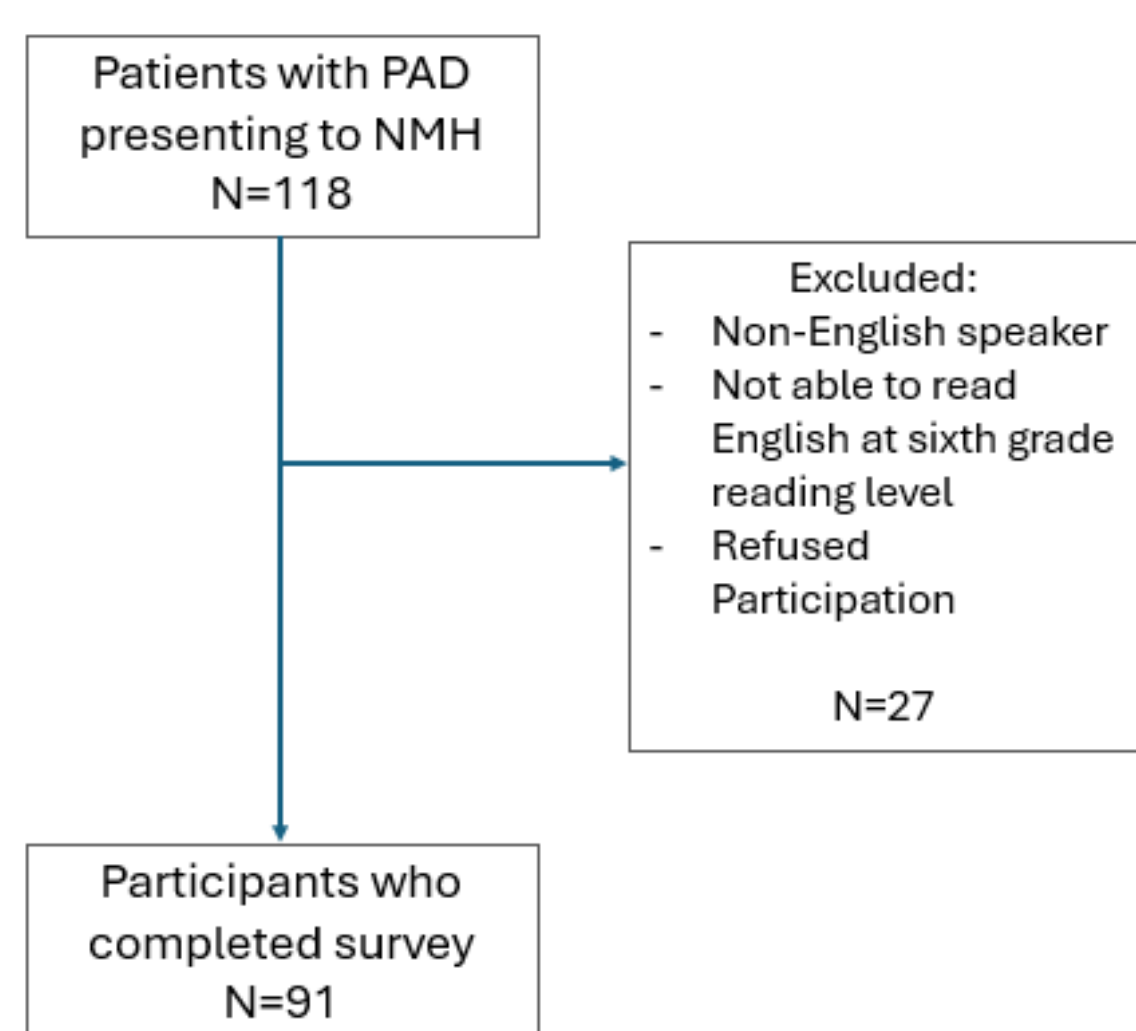


Figure 3. RBCh Scores

Stage	Score
Precontemplation	1
Contemplation	2
Preparation	3
Action	4
Maintenance	5

Figure 4. Total Participant RBCh Scores for Diet, Exercise, Medication, Smoking

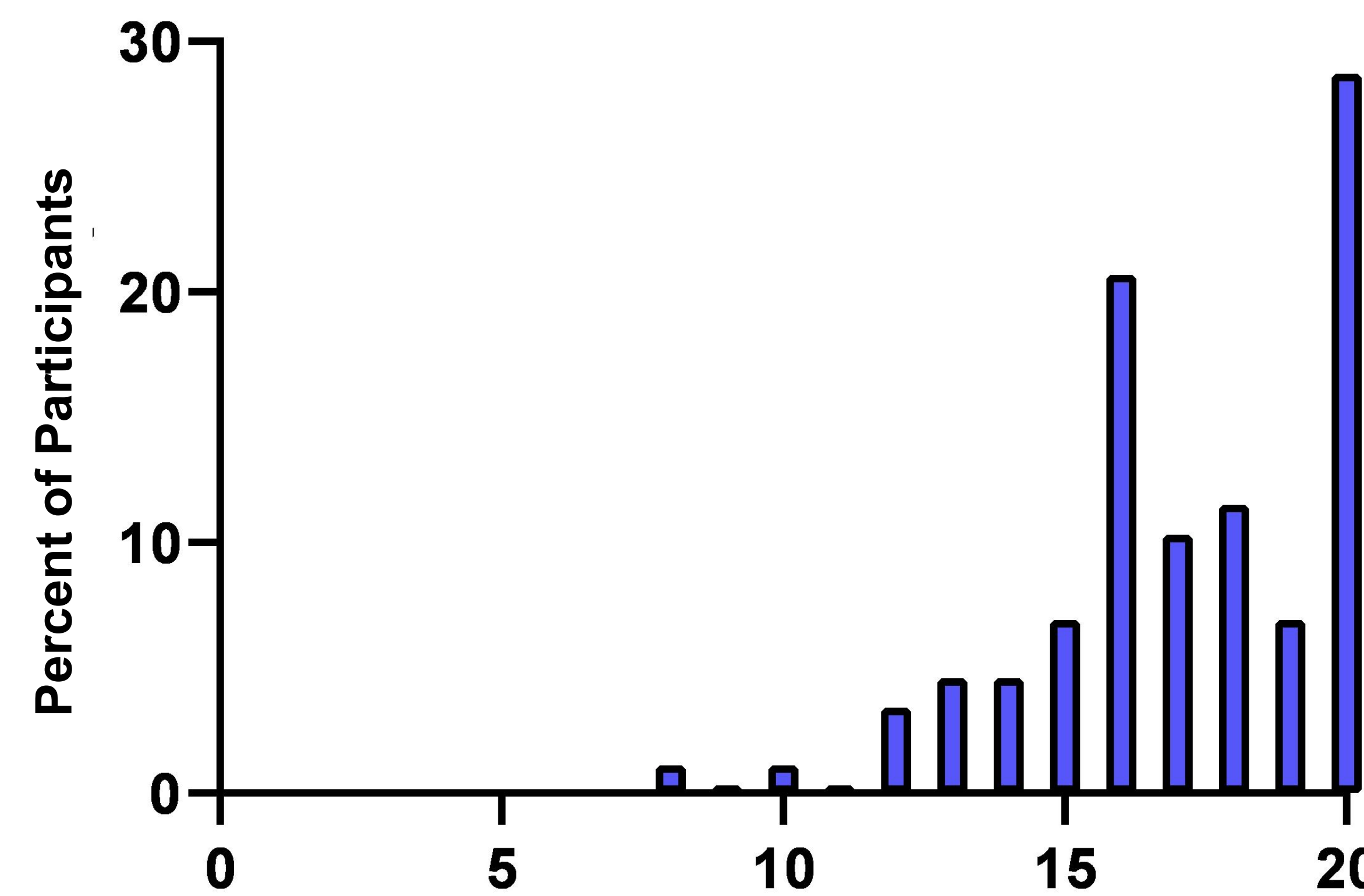


Figure 5. Participant Knowledge Scores

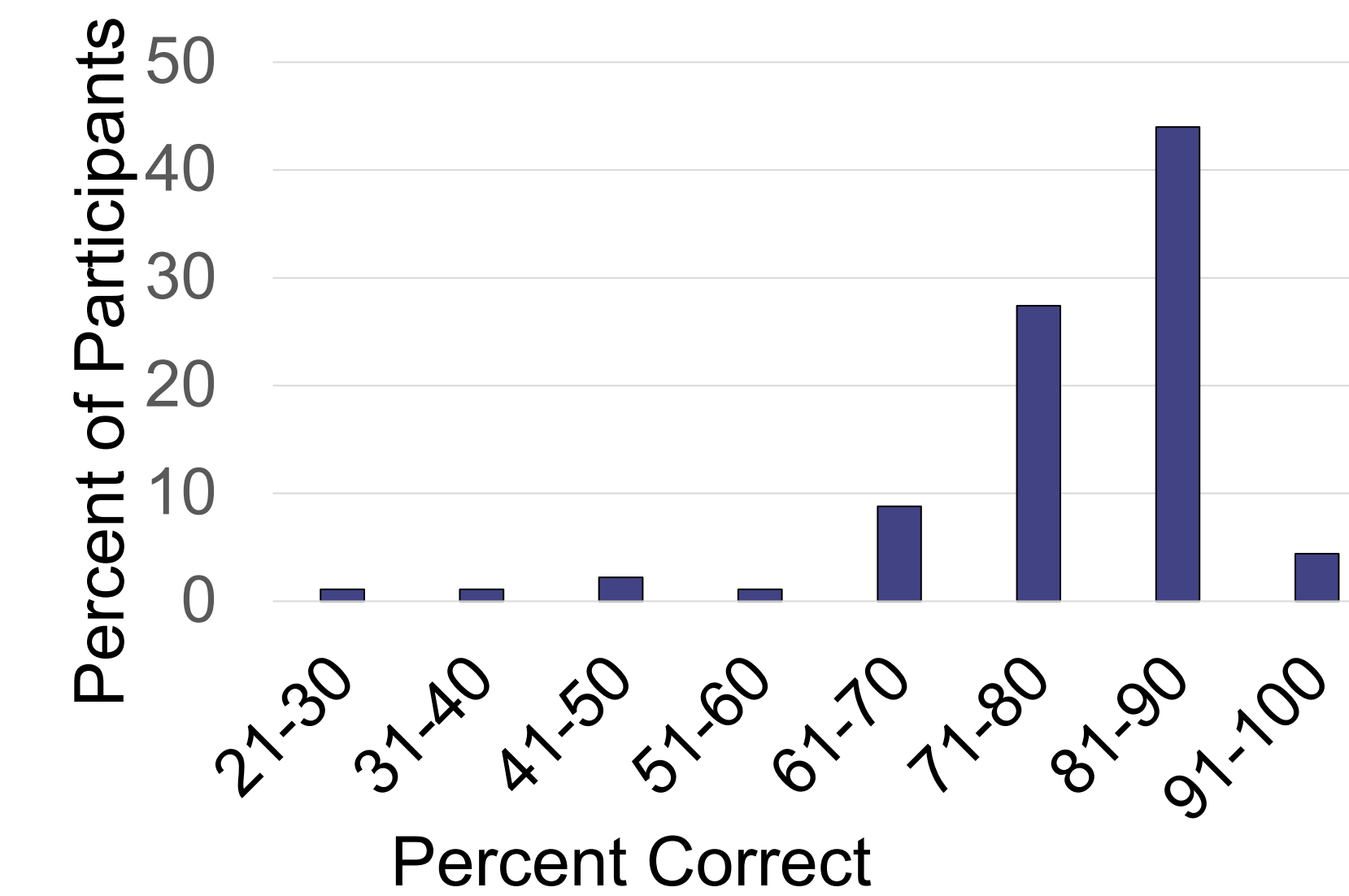


Figure 6. Participant FHL Scores

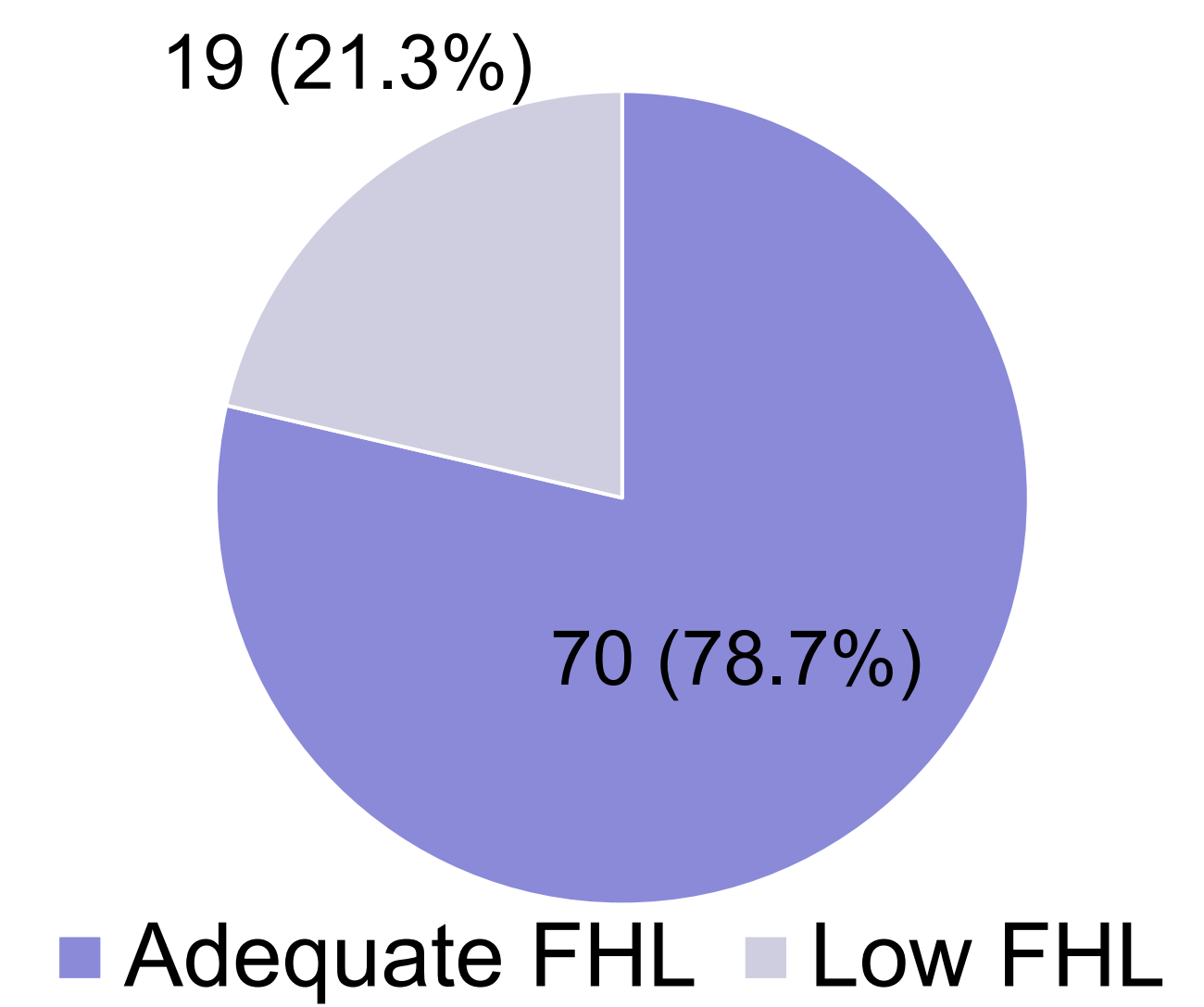


Table 1. Adjusted multivariable linear regression of factors associated with increasing RBCh score

Demographic/ Socioeconomic Factors	Beta-Coefficient	95% Confidence Interval	P Value
Race	-0.41	-1.8-0.9	0.55
Education			
Some high school	-1.7	-3.8-0.3	0.094
High school degree	0.6	-.9-2.1	0.44
Some college	1.0	-0.3-2.3	0.13
College or Master's degree	REF	REF	
Knowledge Score	0.04	-0.09-0.2	0.52
Health Literacy			
Inadequate health literacy	0.73	-0.9-2.4	0.38
Adequate health literacy	REF	REF	
History of PAD Surgery	-1.7	-3.0- -0.4	0.009

Bold indicates P < 0.05

Principal Findings

- Of 91 participants (Figure 1), most (51.7%) had chronic-limb threatening ischemia and 17.6% had a prior major amputation
- Average RBCh score was 17.4 out of 20, indicating RBCh Stage of Action
- 71.6% of participants were "Activated" and the average knowledge score was 75.6% (Figure 5)
- On bivariable analysis, non-White race, lower education level, and low knowledge score, and current smoking status were associated with lower RBCh score
- In multivariable models controlling for race, income, health literacy, and education, low knowledge score was associated with "Inactivated" status and history of PAD surgery was associated with lower RBCh Score (Table 1)

Conclusions

- Patients with PAD demonstrated adequate activation & PAD knowledge
- Overall, patients had high RBCh scores
- After controlling for demographic variables, lower PAD knowledge was associated with poor activation and history of surgery for PAD was associated with lower RBCh score
- 27.5% of participants were inactivated, which was associated with decreased PAD knowledge, increased age, and low-income levels
- Understanding the factors associated with readiness for behavior change and activation among patients with PAD will guide development of interventions to increase patient adoption of disease-modifying behaviors, improve patient outcomes, and identify subsets of patients who need more intensive interventions for sustained behavior change.