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UNIVERSITY OF COLORADO
ANSCHUTZ MEDICAL CAMPUS

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Patient Attitudes Towards Deprescribing Among Adults with Heart Failure with Preserved Ejection Fraction

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Introduction

As the population ages, heart failure with preserved ejection fraction (HFpEF) is increasingly prevalent, and is estimated to affect over 3 million people across the United States.[1] Because HFpEF disproportionately impacts older adults[2] and its pathophysiology is closely intertwined with aging processes,[3] HFpEF has been described as a geriatric syndrome.[4] Indeed, polypharmacy and complex medication regimens are nearly universal in HFpEF;[5,6] and conditions that impact the risk-benefit ratio of many medications, such as frailty and cognitive impairment, are also highly prevalent.[7] Given these vulnerabilities, adults with HFpEF have emerged as an important target population for deprescribing efforts.[8]

Patient attitudes toward deprescribing are an essential part of a patient-centered approach of medication optimization.[9] Patient attitudes have previously been explored nationally[10] demonstrating support, but attitudes could differ across specific subpopulations as they may have unique barriers that could impact attitudes toward deprescribing. The objective of this study was to understand patient attitudes toward deprescribing among patients with HFpEF—a subpopulation.

Methods

We conducted a retrospective study of 134 patients with HFpEF seen between July 2018 and December 2019 at the Weill Cornell HFpEF Program. HFpEF was defined according to the presence of clinical characteristics of heart failure based on physician assessment with a documented left ventricular ejection fraction (LVEF) of at least 40% on the most recent echocardiogram within 6 months of the encounter.

The revised Patient Attitudes Toward Deprescribing tool (rPATD) is a 22-question survey that assesses a patient's attitude toward their medications and toward the potential discontinuation of a medication.[23] Questions address four key domains: Burden, Appropriateness, Concerns, and Involvement; and include two additional Global questions that assess willingness to accept deprescribing and overall satisfaction with current medications. Questions are scored on a 5-point Likert scale. We administered the rPATD at each patient's first clinical encounter in the Weill Cornell HFpEF program.

Domain Management Approach

The Domain Management approach to providing care to patients with heart failure is a framework that outlines vulnerabilities across four important domains of health: medical, mind and emotion, physical function, and social environment.

Medical	Mind and Emotion
-Multimorbidity: ≥ 2 comorbid conditions -Polypharmacy: ≥ 5 medications -Malnutrition: Mini Nutritional Assessment < 12 -Hearing and Vision Impairment: self-report	-Cognitive Impairment: Mini-Cog < 3 -Moderate-Severe Depression: PHQ-9 ≥ 10 -Moderate-Severe Anxiety: GAD-7 ≥ 10
Physical Function	**Social Environment**
-Frailty: Short Physical Performance Battery < 10 -Functional Impairment: Katz Index < 6 -Fall in the Past Year: self-report	-Lives Alone at Home: self-report

Figure 1. The Domain Management Approach and the assessments that compose of each domain.

Statistical Analysis

We calculated medians with interquartile ranges for continuous variables and proportions for categorical variables.

We conducted a logistic regression that examined the bivariate association between agreeing (either Strongly Agree or Agree) with the statement "I would like to try stopping one of my medicines to see how I feel without it" (question A2 from the rPATD) and the following co-variates: demographics (age, sex, race, household income, and highest level of education), self-reported health ("Excellent/Very Good/Good" vs "Fair" vs "Poor" from the first question of the SF-12), and the presence of vulnerabilities from the domain management approach.

Given the low degree of missingness, we conducted a complete case analysis. All analyses were conducted using R-version 3.6.0. A p-value of <0.05 was required for statistical significance.

Results

Age, median (IQR)	75 (69, 82)
Age ≥ 75, n (%)	72/134 (54)
Sex Female, n (%)	81/134 (60)
Race Non-White, n (%)	48/134 (36)
Household Income < $35,000, n (%)	62/134 (46)
Education < High School, n (%)	21/133 (16)
NYHA Class III or IV, n (%)	72/134 (53.7)
Number of comorbidities, median (IQR)	7 (5, 9)
Number of medications, median (IQR)	10 (4, 16)

Table 1. Participant Characteristics

Medical Domain	
NYHA Class III or IV, n (%)	72/134 (53.7)
≥ 2 comorbidities, n (%)	134/134 (100.0)
Polypharmacy, n (%)	126/134 (94.0)
Mind and Emotion Domain	
Cognitive Impairment, n (%)	28/126 (22.2)
Depression Symptoms, n (%)	33/134 (24.6)
Anxiety Symptoms, n (%)	21/134 (15.7)
Physical Function Domain	
Frail, n (%)	96/122 (78.7)
Functional Impairment, n (%)	17/134 (12.7)
Social Environment Domain	
Lives Alone, n (%)	30/134 (22.4)

Table 2. Vulnerabilities of Participants Across Four Domains of Health

Overall, 68.7% of the patients were satisfied with their current medications. However, 90.3% were amenable to deprescribing if told it was possible by their doctors; and 26.9% had an active desire to deprescribe. 69.4% of the patients felt they were taking a large amount of medications, but only 22.3% felt that their current medications were a burden. Notably, 91.8% of patients reported that they would like to be involved in decisions about their medicines.

In bivariate logistic regression, non-White participants were less likely to have an active desire to deprescribe one of their medications (OR 0.25, 95% CI 0.09-0.62, p-value=0.005).

Discussion

Limitations of the study include data derived from a single institution, which may impact generalizability. Additionally, patients were all seen at a specialized HFpEF Program, which may represent a selected subpopulation of adults with HFpEF. Furthermore, the small sample size precluded conducting a multivariable analysis. Future analyses incorporating larger sample sizes and/or qualitative study design are needed to better understand the role of non-clinical factors on patient attitudes toward deprescribing.

In a simple bivariate analysis, we found that non-White patients were less likely to have an active desire to deprescribe. This observation is in contradiction with the lack of association between an active desire for deprescribing and any of the domain vulnerabilities, and suggests that non-clinical factors may be playing an important role in patient attitudes toward deprescribing.

AGS21 VIRTUAL ANNUAL SCIENTIFIC MEETING

References and link to paper: