

Patient and Cardiologist Perspectives on the Treatment of Atherosclerotic Cardiovascular Disease and Obesity

Pam Taub¹; Lyn Behnke^{2,3,4}; Michael G. Knight⁵; Delilah McCarty⁶; Carey Robar⁶; Andrea Traina⁶

¹University of California San Diego, San Diego, CA, USA; ²WomenHeart, Washington, DC, USA; ³University of Michigan-Flint, Flint, MI, USA; ⁴Saginaw Valley State University, University Center, MI, USA;

⁵The George Washington University, Washington, DC, USA; ⁶Novo Nordisk Inc., Plainsboro, NJ, USA

Plain Language Summary

• Why does it matter?

There is a link between negative health outcomes and obesity in people with atherosclerotic cardiovascular disease (ASCVD). However, experiences with ASCVD and obesity from the point of view of patients/caregivers (especially minority populations) and healthcare professionals (HCPs) are not well studied

• How does it work?

An online survey was conducted in 2 parts. In part 1, patients and caregivers were surveyed. Patients, caregivers, and HCPs were also interviewed. In part 2, cardiology HCPs were surveyed

• What did we find?

We found that cardiology HCPs recognize obesity as a risk factor for patients with ASCVD; however, patients report that their HCPs do not usually discuss this link

Introduction

- When present together, ASCVD and obesity pose a serious challenge to patients, HCPs, and health systems
- Though an association between health outcomes and obesity in patients with ASCVD is well established, there are few focused studies on patient/caregiver and HCP perspectives and experiences with ASCVD and obesity, particularly in racial/ethnic minority patient populations¹⁻⁵
- An understanding of how these patient populations navigate the healthcare system as well as patient/HCP perspectives is needed for optimal delivery of treatment and effective mitigation of barriers and challenges to successful treatment
- This study aimed to understand the journeys of an ethnically diverse group of patients with ASCVD and obesity, their caregivers, and HCPs who treat them in order to optimize treatment outcomes

Methods

- This was a 2-part, mixed-methods study in the United States that evaluated patients with ASCVD and body mass index (BMI) ≥ 27 kg/m² and HCPs involved in the management of patients with ASCVD and obesity

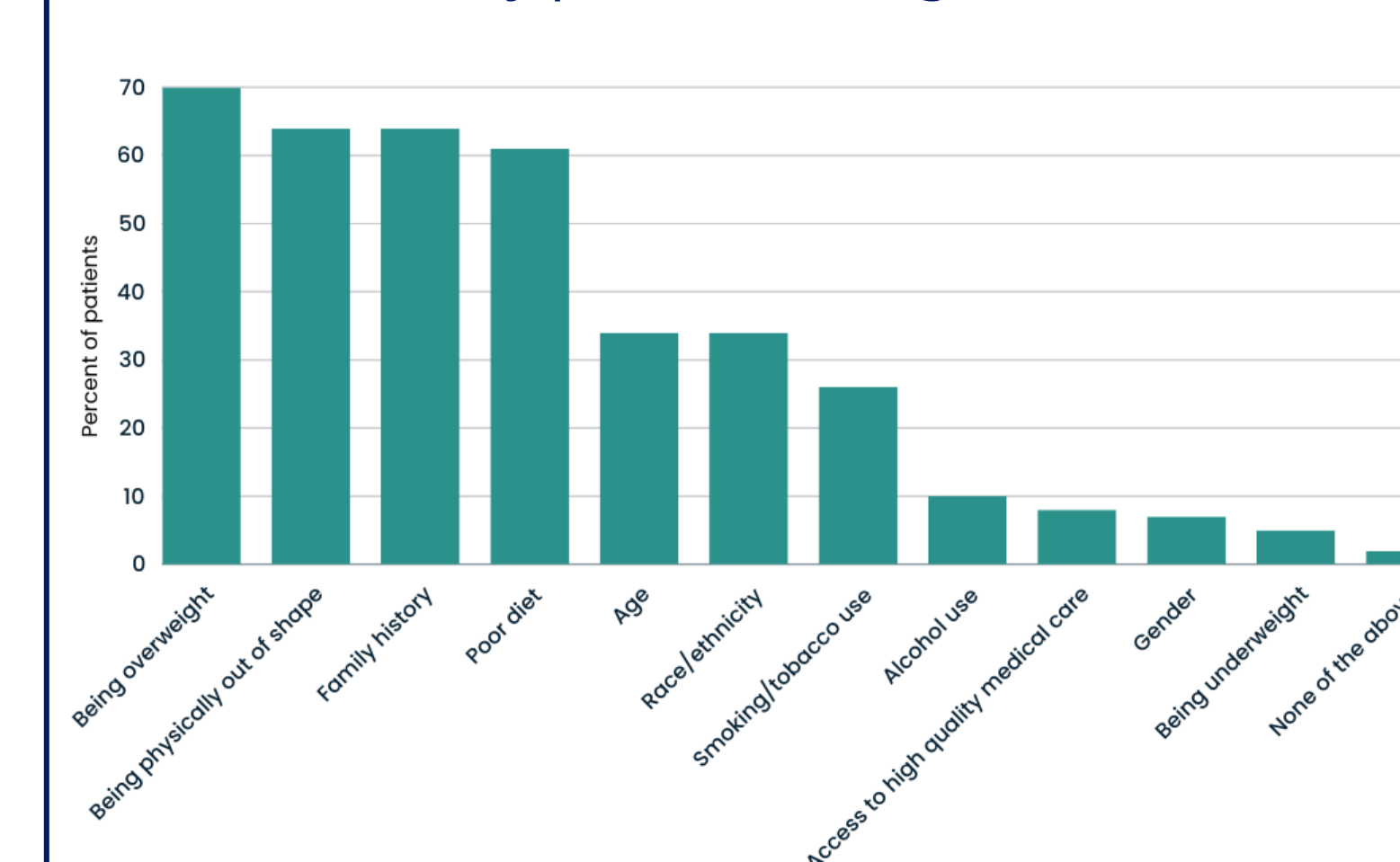
- Part 1 included a qualitative online survey and interviews of patients (N=61) and caregivers (N=12) as well as interviews with HCPs (N=24) to gain insight into their healthcare experiences with ASCVD and obesity and the effects these experiences have on family/finances, current care practice, and barriers to treatment
- Part 2 was a quantitative online survey of cardiology HCPs (N=120) to establish estimates of key performance indicators within the ASCVD treatment space, with a focus on patients with obesity and the racial/ethnic profile of the patient
 - HCPs were also given 4 hypothetical patient profiles (2 males, 2 females; each profile of the same sex was identical except for race) to better understand how HCPs approach treatment pre- and post-ASCVD events in different racial groups

Results

Qualitative (Patients, Caregivers, HCPs)

- Patient respondents were ≥ 45 years old, Black/African American (38%), White (29%), LatinX (20%), Asian (10%), or multiethnic (3%). All patients had ≥ 1 ASCVD event; 66% had been diagnosed with obesity. Caregivers were ≥ 21 years old and cared for patients with ASCVD and obesity
- HCP respondents were cardiologists (71%), nurses (21%), and primary care physicians (PCPs) (8%)
- While 70% of patients thought excess weight was the main risk factor for ASCVD events (Figure 1), many noted lack of communication from HCPs regarding the link between obesity and cardiovascular health

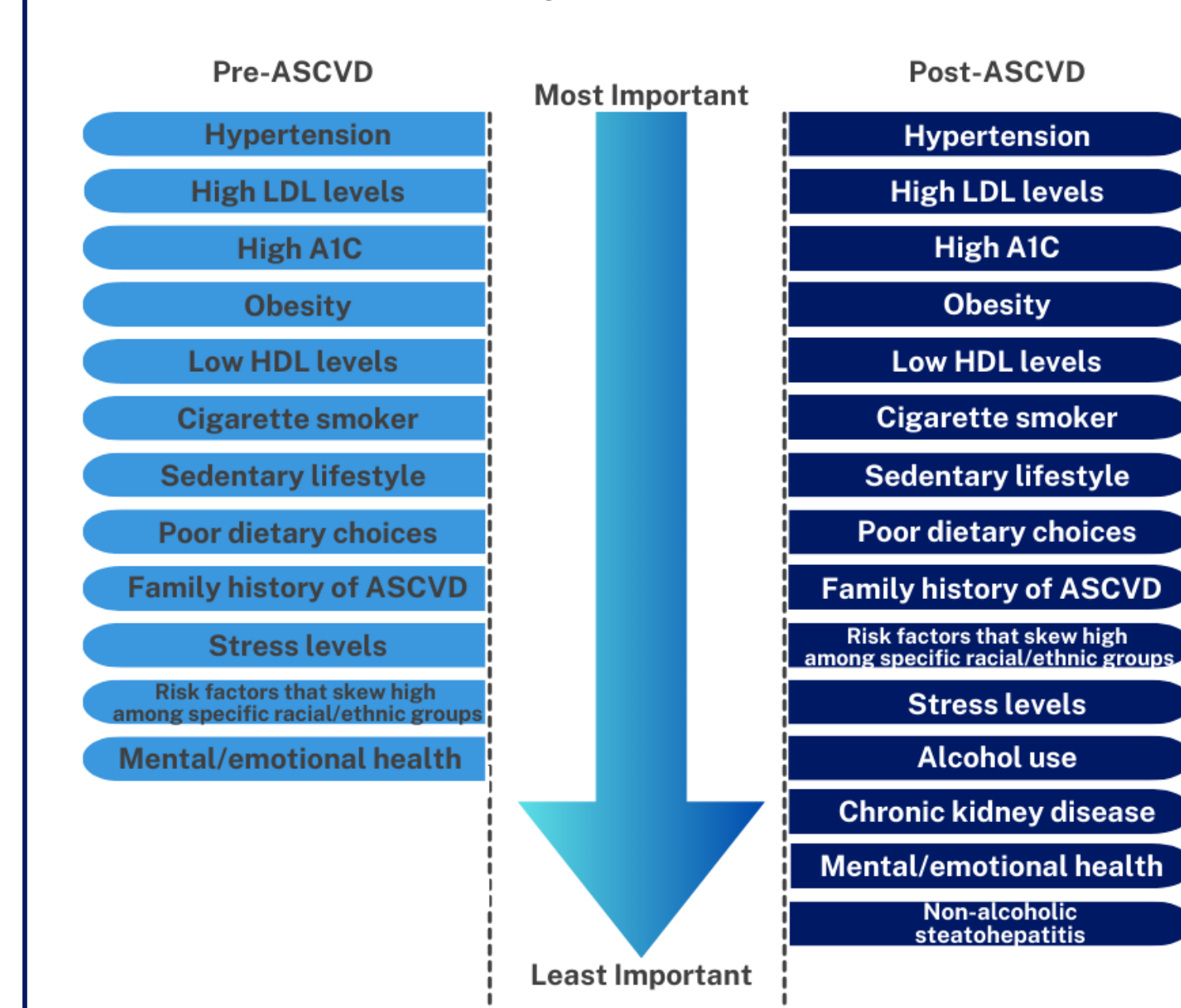
Figure 1: Risk factors reported by patients with obesity prior to having an ASCVD event



ASCVD, atherosclerotic cardiovascular disease.

- Patients reported receiving vague advice on diet/exercise that did not take cultural differences into account in their treatment plans
- Quantitative (HCPs only)**
- HCP respondents were cardiologists (83%), cardiology nurses (15%), and cardiology nurse practitioners (2%)
- Despite estimating that 43% of their patients have a BMI >30 kg/m², HCPs ranked obesity as only the fourth most important parameter to monitor pre- and post-ASCVD (Figure 2)
- Among cardiologists, 53% believed that other HCPs should lead the management of obesity

Figure 2: Risk factors cardiology HCPs consider most important to monitor pre- and post-ASCVD events in patients with obesity



ASCVD, atherosclerotic cardiovascular disease; HCP, healthcare professional; HDL, high-density lipoprotein; LDL, low-density lipoprotein.

- Despite newer anti-obesity medications that are FDA-approved for chronic use, only 12% of HCPs recommended medication for weight management (Figure 3)
- Over 90% of cardiology HCPs recommended changes to diet/exercise pre- and post-ASCVD but admitted to rarely customizing recommendations
- When presented with sets of hypothetical patient profiles that differed only in race, pre- and post-ASCVD treatment approaches were similar in both racial groups (Table 1), even though Black/African American patients with obesity are known to have a higher risk of ASCVD than White patients

Figure 3: Primary recommendations by cardiologists for patients with obesity

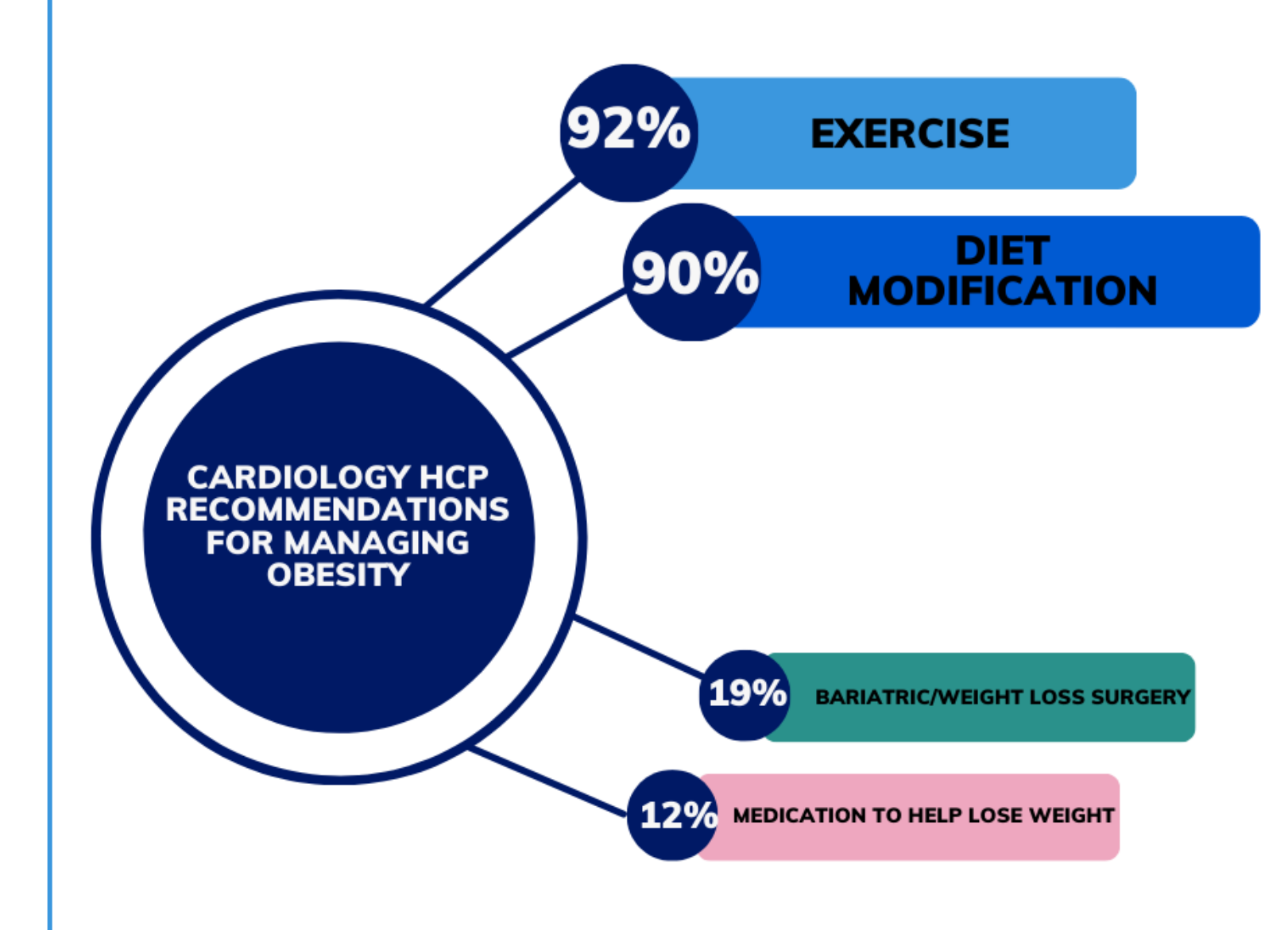


Table 1: Cardiology HCP approaches to treatment pre- and post-ASCVD event

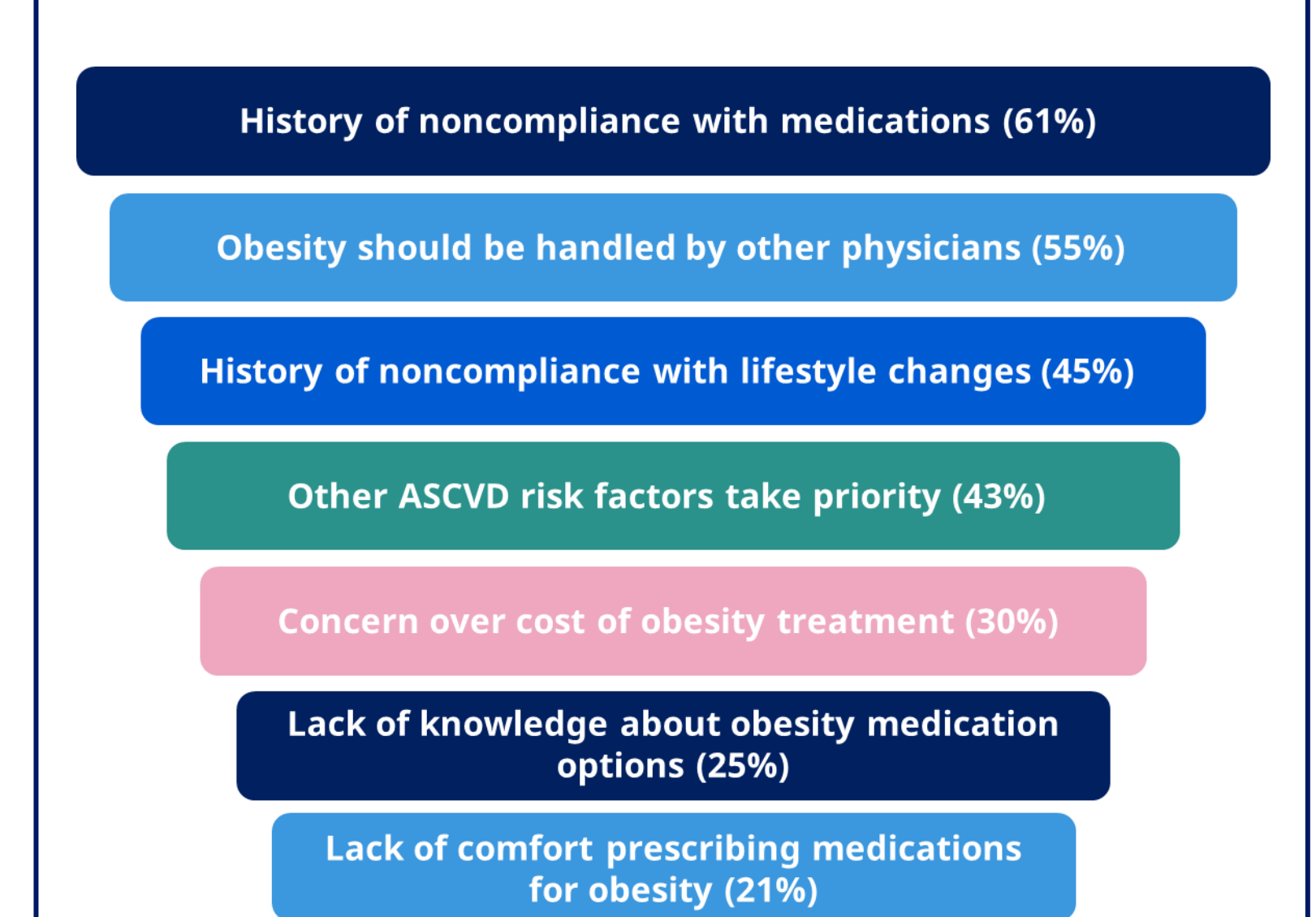
Parameter		Black/African American		White	
		F	M	F	M
Pre-ASCVD Event					
Recommendations for patient, (%)	Healthy diet	76%	73%	73%	64%
	Exercise	63%	66%	65%	64%
Important treatment goals, (%)	Improve risk factors	83%	87%	84%	88%
	Slow disease progression	73%	72%	72%	73%
Physicians to collaborate with, (%)	PCP	84%	83%	83%	83%
	Endocrinologist	55%	54%	54%	54%
Top risk factors (average score)	Hypertension	2.1	2.1	2.1	2.1
	High LDL	2.3	2.2	2.1	2.4
Post-ASCVD Event					
Recommendations for patient, (%)	Healthy diet	63%	60%	60%	60%
	Exercise	58%	54%	59%	60%
Important treatment goals, (%)	Prevent subsequent ASCVD event	76%	73%	78%	73%
	Improve risk factors	65%	67%	66%	68%
Physicians to collaborate with, (%)	PCP	79%	79%	79%	79%
	Endocrinologist	58%	58%	58%	58%
Top risk factors (average score)	Hypertension	1.9	2.0	2.1	1.9
	High LDL	2.1	2.3	2.3	2.3

ASCVD, atherosclerotic cardiovascular disease; F, female; LDL, low-density lipoprotein; M, male; PCP, primary care professional.

Risk factors were scored on a scale from 1 (most important) to either 12 or 15 (least important) for pre- and post-ASCVD, respectively.

- 61% of HCPs stated a history of medication noncompliance as a primary treatment constraint in patients with obesity (Figure 4)

Figure 4: HCP-reported barriers to treatment in patients with obesity



ASCVD, atherosclerotic cardiovascular disease; HCP, healthcare professional.

Discussion

- This study highlights the gaps in care that patients with ASCVD and obesity experience, particularly those in racial/ethnic minority groups
- Cardiology HCPs will need to take on a larger role in the management of obesity in their patients, especially to reduce the risk of secondary ASCVD events. This will become increasingly important as more anti-obesity medications continue to be studied in ASCVD and potentially receive label updates on their cardiovascular safety and/or benefit

Conclusions

- Cardiology HCPs acknowledge obesity as a risk factor for ASCVD, but medical management of obesity is not prioritized
- Cardiology HCPs are hesitant to prescribe anti-obesity medications as part of pre- and post-ASCVD treatment regimens despite new treatment options
- Increased awareness and sensitivity are needed around cultural background when addressing lifestyle changes in patients
- Patients would benefit from cardiology HCPs and other HCPs collaborating to address obesity management