# Insights into PAs' Experiences Working with Patients with Obesity

## Diagnosis, Treatment, and Barriers to Care

*May 16, 2022*

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## Methodology

Data for the 2022 AAPA Treatment of Obesity Survey were collected from March 21 through April 3, 2022. The survey was sent to all PAs (physician assistants) who were signed up as a member of a survey panel (PA Observations; 2,980), and all members of the AAPA House of Delegates (387) via email. A unique link was provided to the PAs in Obesity Medicine special interest group (estimated 500) which was shared on their Facebook page.

Participants were offered an incentive from AAPA for completing the survey and they were given the option to receive a $20 gift card or have $20 donated to the PA Foundation. Most PAs (451, 77.5%) received the gift card; 131 (22.5%) donated their funds to the PA Foundation.

A total of 777 PAs started the survey; 20 were disqualified, and 582 PAs completed the survey. Due to the nature of data collection, a response rate cannot be collected. The overall margin of error is +/-3.55% at the 95% confidence level. The margin of error varies by question.

"N" refers to the number of respondents and is generally the first column in the data tables. Totals do not always add up to 100% due to rounding.

## Disclosures

The 2022 AAPA Treatment of Obesity Survey was sponsored by Novo Nordisk. Novo Nordisk provided some guidance to formulate the survey approach. AAPA had final approval for all questions within the survey. PAs were informed that Novo Nordisk sponsored the study at the conclusion. Participant identities were not disclosed.

## About PAs

PAs (physician associates/physician assistants) are licensed clinicians who practice medicine in every specialty and setting. PAs are dedicated to expanding access to care and transforming health and wellness through patient-centered, team-based medical practice and often serve as a patient's principal healthcare provider. They are educated at the master's degree level in the medical model over a 27-month long period. To learn more about PAs, go to aapa.org.

## About AAPA

Founded in 1968, the American Academy of Physician Associates is the national professional society for PAs (physician associates/physician assistants). It represents a profession of more than 150,000 PAs across all medical and surgical specialties in all 50 states, the District of Columbia, U.S. territories, and the uniformed services.

AAPA advocates and educates on behalf of the profession and the patients PAs serve. We work to ensure the professional growth, personal excellence, and recognition of PAs. We also enhance their ability to improve the quality, accessibility, and cost-effectiveness of patient-centered healthcare.

## How to Cite

Insights into PAs' Experiences Working with Patients with Obesity: Diagnosis, Treatment, and Barriers to Care. 2022. American Academy of Physician Associates. Alexandria, VA.

## Executive Summary

In 2017-2018, one in four (42%) people in the United States (U.S.) met BMI criteria for obesity (BMI >30 kg/m2), increasing from 30.9% in 1999-2000. Severe obesity (BMI >40 kg/m2) doubled in that same time frame, from 4.7% to 9.2%.[1] Obesity, as defined by the Obesity Management Association, is "a chronic, relapsing, multi-factorial, neurobehavioral disease wherein an increase in body fat promotes adipose tissue dysfunction and abnormal fat mass physical forces, resulting in adverse metabolic, biomechanical, and psychosocial health consequences."[2] Obesity contributes to a myriad of health conditions such as heart disease, stroke, type 2 diabetes and many cancers. Each of these conditions can in turn lead to other health conditions, resulting in a patient in need of complex healthcare treatments.[3] According to the National Academy of Medicine (NAM), the three main treatments for obesity in the U.S. are lifestyle interventions, pharmacotherapy, and bariatric surgery. Obesity is a complex disease and treatment can be equally complex.[4]

Almost all PAs are working with patients with obesity, even if it is not a health condition they are evaluating or treating. Two out of three PAs (69%) indicated that 26% or more of their patients have a formal diagnosis of obesity and one out of four (28%) indicated that 51% or more had a formal diagnosis of obesity. Almost all PAs, however, are educating patients about treatments for obesity (88%) and/or making referrals to another professional (88%; Table 1, Figure 1).

The majority of PAs are engaging in clinical activities related to the diagnosis and/or treatment of obesity; however, between 12% and 26% indicated that they never engage in this type of activity (Table 2). On the other hand, a greater proportion indicated that they are engaging in these activities at least once a day (17% to 36%).

How are the 82% of PAs who are making formal diagnoses of obesity within the medical records or electronic health records (EHR) (Table 2, Figure 1), doing so? Almost all PAs (99%) are using body mass index (BMI) as one tool. Other modes of evaluation include observation (43%) and waist circumference measurement (20%). Additional findings can be found in Table 3. BMI is an important screening tool for obesity. Clinical guidelines recommend that additional evaluations are needed to make a formal diagnosis of obesity.[5]

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[1] Centers for Disease Control and Prevention. Adult Obesity Facts. Online at https://www.cdc.gov/obesity/data/adult.html. Accessed May 3, 2022.

[2] Obesity Management Association. What is Obesity. Online at https://obesitymedicine.org/what-is-obesity/. Accessed May 6, 2022.

[3] Public Education Committee. The Impact of Obesity on Your Body and Health. American Society for Metabolic and Bariatric Surgery. Online at https://asmbs.org/patients/impact-of-obesity. Accessed May 3, 2022.

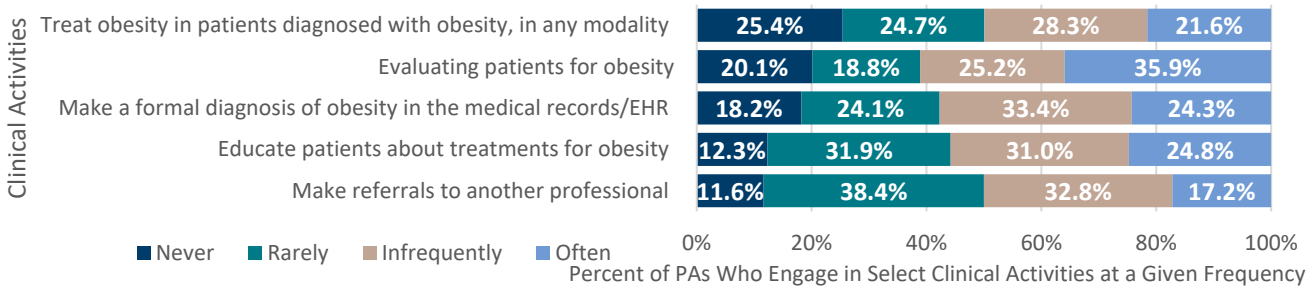
[4] Endocrinologists and American College of Endocrinology position statement on the 2014 advanced framework for a new diagnosis of obesity as a chronic disease. *Endocr Pract*. 2014 Sep;20(9):977-89. doi: 10.4158/EP14280.PS. PMID: 25253227; PMCID: PMC4962331;

Heymsfield SB, Aronne LJ, Eneli I, et al. 2018. Clinical perspectives on obesity treatment: Challenges, gaps, and promising opportunities. NAM Perspectives. Discussion Paper, National Academy of Medicine, Washington, DC. https://doi.org/10.31478/201809b;

Moyer VA on behalf of the U.S. Preventive Services Task Force , et al. Screening for and Management of Obesity in Adults: U.S. Preventive Services Task Force Recommendation Statement. *Ann Intern Med*.2012;157:373-378. [Epub 4 September 2012]. doi:10.7326/0003-4819-157-5-201209040-00475

[5] Garvey WT, Mechanick JI, Brett EM, et al. American Association of Clinical Endocrinologists and American College Of Endocrinology Comprehensive Clinical Practice Guidelines for Medical Care of Patients with Obesity Executive Summary Complete Guidelines available at https://www.aace.com/publications/guidelines. *Endocr Pract*. 2016;22(7):842-884. doi:10.4158/EP161356.ESGL

**Figure 1. Frequency PAs Engage in Select Clinical Activities Related to Patients with Obesity.**




**Area of Opportunity**
**Additional guidance on the evaluation of adiposity may better equip PAs to make formal diagnoses of obesity.**

Why aren't PAs treating patients with obesity? Among the 25% of PAs who do not treat patients with obesity, the majority (81%) indicated that it was not relevant to their practice. A much smaller proportion of PAs indicated that it was not relevant to their assigned duties (34%) and that patients have other higher priority issues (26%). While few PAs indicated that lack of insurance coverage is a reason for not treating obesity and 8% do not have the time to treat obesity, there is an implication that PAs may be more likely to treat obesity if systems factors are addressed (Table 4).

**Area of Opportunity**
**Additional guidance on navigating insurance and documentation may increase the proportion of PAs treating obesity**

Most PAs (88%) are making referrals to another professional for treatment of obesity at least some of the time (Table 2). Asked more in-depth, 19% of all PAs said that referrals for patient with obesity is not relevant to their practice. Among the 81% of PAs who do think it is relevant, 10% of those do not make referrals because they do not know where to refer them to. Another 41% make referrals because they do not provide treatment at their office. The remainder (39%) may treat patients with obesity in the office exclusively, may make referrals, or may do both (Table 5).

**Area of Opportunity**
**Additional guidance on building a referral network of obesity medicine specialists may increase the number of patients receiving referrals for the treatment for obesity**

When prompted to tell us why they do not think referring patients with obesity for treatment is relevant to their practice, they gave reasons such as:

- They are specialists and refer their patients back to their primary care provider

- They are in a specialty such as dermatology, emergency medicine, critical care, hospital medicine, and radiology
- They work in specialties such as oncology, trauma, and surgery and while they may diagnose obesity, they are concerned with their patients making it through their primary treatment first.

**Area of Opportunity**
**Additional conversations on the breadth of conditions that are impacted by obesity may increase the number of patients receiving referrals for the treatment for obesity**

While obesity medicine specialists and combined medical and surgical obesity treatment programs are designed to provide the full spectrum of healthcare to patient with obesity[6], these are not the primary sources of referrals for treatment. PAs are referring patients primarily to registered dieticians (60%), registered dietician nutritionists (46%), and to bariatric surgery (49%). They are less likely to refer patients to obesity medicine specialists (36%), combined medical and surgical obesity treatment programs (36%), to physical therapy or personal training (32%) and medical weight loss clinics (32%; Table 6).

**Area of Opportunity**
**Additional information about the treatments that obesity medicine specialists provide may help PAs understand the breadth of treatments available**

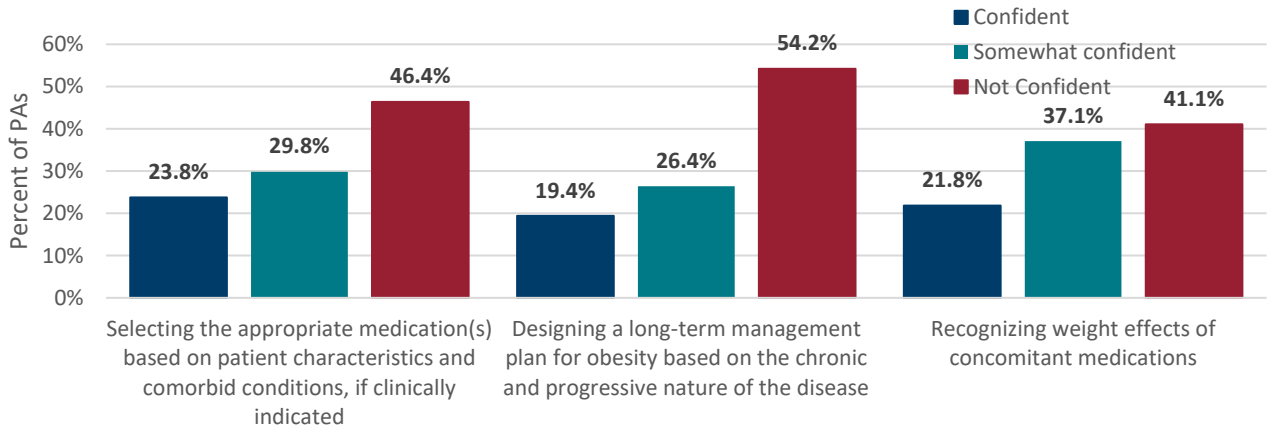
During the COVID-19 pandemic of 2020 and 2021, there was little effect on how frequently PAs treat obesity (61% no effect), how aggressively they treat obesity (63% no effect), and how frequently they make referrals (71%) for patients with obesity. However, one in three (32%) said that the COVID-19 pandemic positively impacted how they use telemedicine as a tool to treat obesity (Table 7).

About half (54%) of PAs agreed that their practice environment is optimally set up to manage persons with obesity (e.g., appropriate gowns, blood pressure cuffs, adequate scale in private area). Despite the majority of PAs treating obesity and/or referring patients for treatment for obesity, 32% do not think that they have the sufficient training, knowledge, and skills to treat obesity and 42% agree that discussing obesity/weight with their patients is uncomfortable. Half of all PAs (53%) agree that pharmacotherapy is a valuable option for many patients living with obesity and another 37% have no opinion on the matter (Table 8).

Similarly, PAs are critical of their abilities to treat obesity. 24% are confident in their ability to select the appropriate medication for treatment of obesity, 19% for designing a long-term management plan for obesity based on the chronic and progressive nature of the disease and 22% are confident in their ability to recognize the weight effects of concomitant medications (Figure 2, Table 9).

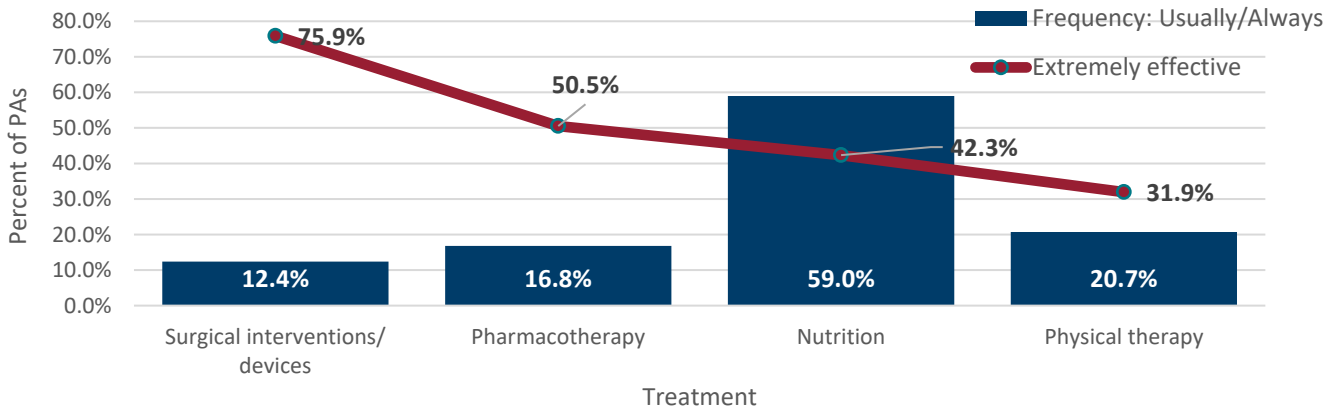
[6] Heymsfield SB, Aronne LJ, Eneli I, et al. 2018. Clinical perspectives on obesity treatment: Challenges, gaps, and promising opportunities. NAM Perspectives. Discussion Paper, National Academy of Medicine, Washington, DC. https://doi.org/10.31478/201809b

**Figure 2. PAs' Confidence in Select Skills for the Treatment of Obesity**




Viewing these two sets of findings in conjunction with the infrequency that PAs treat obesity (Figure 1), how few have practices optimal set up to treat patients with obesity, and their discomfort talking with patients about obesity and weight provides a broader view of the treatment landscape.

**Figure 3. Frequency PAs Discuss Treatments for Patients with Obesity and the Perceived Effectiveness of Those Treatments**

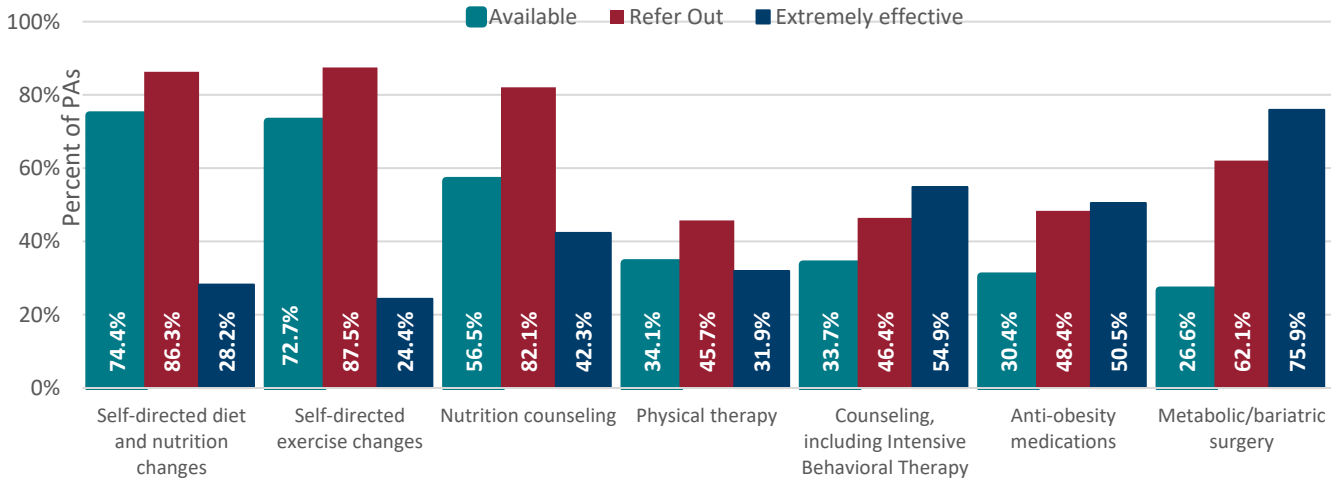



There is a juxtaposition between the frequency that PAs engage in a variety of behaviors and the perceived effectiveness with those behaviors. PAs were asked to indicate how often they performed certain practice behaviors, including discussing treatment options for patients with pre-obesity and obesity (Table 10) as well as what the perceived effectiveness of select treatments were (Table 11). While PAs perceive surgical interventions as extremely effective, only 12% usually or always discussed this option with their patients with pre-obesity or obesity. Similarly, 51% of PAs familiar with pharmacotherapy for treatment of obesity perceived it to be extremely effective but only 17% usually or always discussed this option with their patients (Figure 3). This may be due to the severity of obesity within their patient population. However, half did indicate that pharmacotherapy is a valuable option for many patients living with obesity (Table 8).

**Area of Opportunity**
**Additional education on effective interventions for each stage of obesity may give PAs greater confidence in their ability to select appropriate treatments for patients with obesity.**

Looking at the availability of treatments for obesity within their practice, we again see a contrast between the availability of treatments and the perceived effectiveness of treatments.

**Figure 4. Availability of Treatment Options, Use of Referrals, and Perceived Effectiveness of Treatments for Obesity**




When asked about how effective interventions for obesity are, among those with experience with the intervention, the top 3 interventions perceived as very to extremely effective were metabolic/bariatric surgery (76%), counseling (55%), and anti-obesity medications (51%; Table 11). When asked about the available treatments at their practice, the top three treatments available were self-directed diet and nutrition (74%) and exercise (73%) changes and nutrition counseling (57%; Table 12). Similarly, they were referring patients out for further treatment most often for self-directed exercise (88%) and diet and nutrition (86%) changes along with nutrition counseling (82%; Table 13). These findings, generally mirror the results from a study of physicians in 2017. In that study, physicians recommended self-directed diet (58%) and exercise changes (57%) most often and less so to visiting a nutritionist or dietician (27%), prescription weight loss medication (11%), visiting a weight loss specialist (9%), and weight loss surgery (7%).[7] We will look next at barriers to prescribing the three most effective treatments for obesity.

**Area of Opportunity**
**Additional education on effective interventions for each stage of obesity may allow practices with PAs to provide a greater array of treatment modalities for obesity.**

[7] Kaplan LM, Golden A, Jinnett K, et al.. Perceptions of Barriers to Effective Obesity Care: Results from the National ACTION Study. *Obesity*. 2018;26(1):61-69. doi:10.1002/oby.22054.

PAs were asked about the barriers to prescribing treatments for obesity within their practice (Tables 16-22). Diving deeper, PAs looked at the barriers to prescribing counseling, including intensive behavioral therapy (Table 20), anti-obesity medications (Table 21), and metabolic/bariatric surgery (Table 22). PAs ranked the top barriers for each of the following treatment modalities. Scope of practice was listed for each of the three treatment modalities (Figure 5).

**Figure 5. Top three most frequently listed as the top barrier to prescribing treatments for obesity**

| Counseling, including intensive behavioral therapy | Anti-obesity medications | Metabolic/bariatric surgery |
|---|---|---|
| 1. Limited availability to this in my location | 1. Outside of scope of practice, requires referral | 1. Outside of scope of practice, requires referral |
| 2. Patients are resistant to this | 2. Not covered/reimbursed by health insurance | 2. Patients are resistant to this |
| 3. Outside of scope of practice, requires referral | 3. Too expensive for patient population | 3. Not covered/reimbursed by health insurance |

If adequate medical coverage was available 50% of all PAs would recommend anti-obesity as a treatment for their patients with obesity more often than currently doing so. Among those that recommend anti-obesity medication, 79% would increase their recommendations (Table 15). Coverage and cost were ranked the second and third most common barriers to prescribing anti-obesity medication (Table 21). This is echoed in the resources PAs recommended to help increase medication prescribing for treatment of obesity. Two-thirds of PAs indicated ensuring treatments are covered and/or reimbursed by health care (67%) followed by half who indicated that less expensive costs (53%) may increase prescribing. In addition, PAs understand that more education would give them better ability to prescribe medications for treatment of obesity. Specifically, half (47%) PAs indicated they wanted education on clinical outcomes of obesity treatments and 42% indicted regular webinars and training on obesity treatment. (Table 23).

**Area of Opportunity**
**PA and patient education as well as advocacy are needed to overcome the obstacles to providing effective treatment for patients with obesity.**

In summary, PAs are working with patients with obesity every day. Like the physicians included in the ACTION study, not all PAs are comfortable having conversations about patients' weight. However, they do see the efficacy of many of the treatment modalities currently available for patients with obesity. Barriers, including PA and patient education, cost, and insurance coverage will need to be addressed if treatment for obesity is to be made more readily available for all patients interested in treatment.

## Data Tables

### Table 1. Percent of Patients with a Diagnosis of Obesity

| Type of Diagnosis | Total | 0% | 1% to 25% | 26% to 50% | 51% to 75% | 76% to 100% |
|---|---|---|---|---|---|---|
| | N | Percent (%) | | | | |
| Percent of patient with a formal diagnosis of obesity | 572 | 1.0 | 30.4 | 40.7 | 22.6 | 5.2 |
| Percent of patient without a formal diagnosis of obesity | 572 | 4.4 | 36.4 | 31.1 | 25.7 | 2.4 |

*2022 AAPA Survey on the Treatment of Obesity*
*Question: "Approximately what percentage of your patients have..."*

### Table 2. Frequency of Clinical Activities

| Activities | Total | Never | Rarely | Infrequently | Often |
|---|---|---|---|---|---|
| | N | Percent (%) | | | |
| Evaluating patients for obesity | 576 | 20.1 | 18.8 | 25.2 | 35.9 |
| Make a formal diagnosis of obesity in the medical records/EHR | 577 | 18.2 | 24.1 | 33.4 | 24.3 |
| Treat obesity in patients diagnosed with obesity, in any modality | 575 | 25.4 | 24.7 | 28.3 | 21.6 |
| Make referrals to another professional | 576 | 11.6 | 38.4 | 32.8 | 17.2 |
| Educate patients about treatments for obesity | 577 | 12.3 | 31.9 | 31.0 | 24.8 |

*2022 AAPA Survey on the Treatment of Obesity*
*Question: "How often do you do the following in your clinical setting?" Rarely = Once a month or Less: Infrequently = Once a week to several times a month; Often = At least once a day*

### Table 3. Tools Used for PAs to Diagnose Patients with Obesity

| Mode of Diagnosis | N | Percent (%) |
|---|---|---|
| Body mass index (BMI) | 469 | 99.4 |
| Observation | 201 | 42.6 |
| Waist circumference measurement | 94 | 19.9 |
| Recommendation from patient | 53 | 11.2 |
| Body fat measurement | 38 | 8.1 |
| Bioelectrical impedance | 11 | 2.3 |
| DEXA | 9 | 1.9 |
| Skinfold test | 5 | 1.1 |
| Hydrostatic weighing | 1 | 0.2 |
| Air displacement plethysmography | 0 | 0.0 |
| Other | 6 | 1.3 |
| Total | 472 | 100 |

*2022 AAPA Survey on the Treatment of Obesity*
*Question: "How do you diagnose patients with obesity? Select all that apply"*

**Table 4. Reasons for Not Treating Obesity in Patients Diagnosed with Obesity**

| Reasons for Not Treating Obesity | N | Percent (%) |
|---|---|---|
| This is not relevant to my clinical specialty/No one in my practice treats obesity | 117 | 80.7 |
| This is not relevant to my assigned duties | 49 | 33.8 |
| Patients have other higher priority issues | 37 | 25.5 |
| I am not up-to-date on obesity treatments | 23 | 15.9 |
| I do not have time to treat obesity | 11 | 7.6 |
| Lack of insurance coverage for treatment options | 7 | 4.8 |
| Patients are responsible for their obesity management | 2 | 1.4 |
| I am not adequately compensated for it | 2 | 1.4 |
| Obesity is not a disease | 1 | 0.7 |
| Other | 8 | 5.5 |
| **Total** | **145** | **100** |

*2022 AAPA Survey on the Treatment of Obesity*
*Question: "The reason that I do not treat obesity in patients diagnosed with obesity is: Select all that apply"*

**Table 5. Referrals for Treatment of Obesity**

| Referrals | N | Among "This is Relevant" | Among All |
|---|---|---|---|
| | | Percent (%) | |
| No, I do not have anywhere to refer patients | 46 | 9.9 | 8.0 |
| **Subtotal for Do Not Refer** | **46** | **9.9** | **8.0** |
| No, someone else in my team provides treatment for obesity in the office | 13 | 2.8 | 2.3 |
| No, I provide treatment for obesity in the office | 77 | 16.6 | 13.3 |
| Yes, I refer patients we may also have someone in my team (including me) providing treatment for obesity in the office as well | 139 | 29.9 | 24.1 |
| Yes, I refer patients we do not provide treatment for obesity in the office | 190 | 40.9 | 32.9 |
| **Subtotal for Yes and/or This Is Done in the Office** | **419** | **90.1** | **72.6** |
| **Grand Subtotal for Those for Whom this Is Relevant** | **465** | **100** | **80.6** |
| No, this is not relevant to my practice | 112 | NA | 19.4 |
| **Total** | **577** | | **100** |

*2022 AAPA Survey on the Treatment of Obesity*
*Question: "Do you refer patients with obesity for treatment for obesity?"*

**Table 6. Where Patients with Obesity Are Referred**

| Referrals | N | Percent (%) |
|---|---|---|
| Registered dietician | 197 | 60.2 |
| Bariatric surgery | 159 | 48.6 |
| Registered dietician nutritionist | 151 | 46.2 |
| Obesity medicine specialist | 119 | 36.4 |
| Combined medical/surgical obesity treatment program | 118 | 36.1 |
| Physical therapy or personal training | 105 | 32.1 |
| Medical weight loss clinic | 104 | 31.8 |
| Behavioral therapy | 84 | 25.7 |
| Other clinicians | 48 | 14.7 |
| Commercial weight loss program | 28 | 8.6 |
| Somewhere else not listed | 5 | 1.5 |
| Total | 327 | 100 |

*2022 AAPA Survey on the Treatment of Obesity*
*Question: "Where do you refer patients with obesity? Select all that apply"*

**Table 7. Impact of COVID on Clinical Activities**

| Activities | Total | Negative | None | Positive |
|---|---|---|---|---|
| | N | | Percent (%) | |
| The frequency I treat patients with obesity | 440 | 28.9 | 60.7 | 10.5 |
| How aggressively/likely I (am to) treat patient with obesity | 450 | 17.6 | 62.9 | 19.6 |
| The frequency I refer patients for treatment of obesity | 454 | 17.6 | 70.5 | 11.9 |
| The use of telemedicine as a tool to treat obesity | 384 | 9.1 | 58.6 | 32.3 |

*2022 AAPA Survey on the Treatment of Obesity*
*Question: "How has the COVID-19 pandemic affected how you treat obesity, compared to prior to the pandemic?"*

**Table 8. Agreement with Statements Regarding Obesity**

| Statements | Total | Disagree | No Opinion | Agree |
|---|---|---|---|---|
| | N | Percent (%) | | |
| I have the sufficient training, knowledge, and skills to treat obesity | 577 | 32.1 | 26.3 | 41.6 |
| My practice environment is optimally set up to manage persons with obesity (e.g.,, appropriate gowns, blood pressure cuffs, adequate scale in private area) | 574 | 31.5 | 15.0 | 53.5 |
| Obesity is a chronic and progressive disease | 576 | 1.7 | 3.6 | 94.6 |
| Discussing obesity/weight with my patients is uncomfortable | 576 | 38.0 | 19.6 | 42.4 |
| Pharmacotherapy is a valuable option for many patients living with obesity | 574 | 9.9 | 36.8 | 53.3 |

*2022 AAPA Survey on the Treatment of Obesity*
Question: "Please indicate your agreement with the following statements"

**Table 9. Confidence in Select Areas of Practice Related to Treating Obesity**

| Areas of Practice | Total | Not Confident | Somewhat Confident | Confident |
|---|---|---|---|---|
| | N | Percent (%) | | |
| Selecting the appropriate medication(s) based on patient characteristics and comorbid conditions, if clinically indicated (Confidence) | 429 | 46.4 | 29.8 | 23.8 |
| Designing a long-term management plan for obesity based on the chronic and progressive nature of the disease (Confidence) | 428 | 54.2 | 26.4 | 19.4 |
| Recognizing weight effects of concomitant medications (Confidence) | 426 | 41.1 | 37.1 | 21.8 |

*2022 AAPA Survey on the Treatment of Obesity*
*Question: "Please indicate your level of confidence for the following areas of your practice"*

**Table 10. Frequency Performing Select Practice Behaviors Related to Treating Obesity**

| Practice Behaviors | Total | Never/ Rarely | Half of the Time | Usually/ Always |
|---|---|---|---|---|
| | N | Percent (%) | | |
| Discuss the role of nutrition in obesity management with my patients | 573 | 26.4 | 14.7 | 59.0 |
| Discuss the role of pharmacotherapy in obesity management with my patients | 572 | 64.5 | 18.7 | 16.8 |
| Discuss the role of physical therapy in obesity management with my patients | 574 | 58.5 | 20.7 | 20.7 |
| Discuss the role of surgical interventions/devices in obesity management with my patients | 573 | 65.3 | 22.3 | 12.4 |
| Integrate pharmacotherapy into an obesity management plan | 572 | 72.9 | 14.2 | 12.9 |
| Initiate appropriate pharmacotherapy early in the obesity management plan according to clinical practice guidelines | 572 | 74.8 | 12.8 | 12.4 |
| Integrate guidelines for obesity treatment and management into my patient treatment plan | 567 | 57.5 | 17.3 | 25.2 |
| Integrate behavioral modification/motivational interviewing into an obesity management plan | 574 | 43.2 | 20.4 | 36.4 |
| Identifying weight promoting medications | 572 | 62.2 | 16.3 | 21.5 |

*2022 AAPA Survey on the Treatment of Obesity*
*Question: "Please indicate how often you perform the following practice behaviors for your patients with pre-obesity/obesity"*

**Table 11. Perceived Effectiveness of Select Interventions for Treating Obesity**

| Interventions | Total | No Experience | Among Those with Experience | | |
|---|---|---|---|---|---|
| | | | Not At All/Slightly Effective | Somewhat Effective | Moderately/ Extremely Effective |
| | N | | Percent (%) | | |
| Self-directed diet and nutrition changes | 575 | 33 | 41.1 | 30.6 | 28.2 |
| Self-directed exercise changes | 575 | 33 | 45.6 | 30.1 | 24.4 |
| Nutrition counseling | 575 | 53 | 19.3 | 38.3 | 42.3 |
| Physical therapy | 574 | 217 | 27.2 | 40.9 | 31.9 |
| Counseling, including Intensive Behavioral Therapy | 573 | 174 | 13.5 | 31.6 | 54.9 |
| Anti-obesity medications | 573 | 185 | 16.8 | 32.7 | 50.5 |
| Metabolic/bariatric surgery | 575 | 102 | 5.7 | 18.4 | 75.9 |

*2022 AAPA Survey on the Treatment of Obesity*
*"To what degree do you find the following interventions to be effective in treating obesity?"*

**Table 12. Available Treatment Options for Patients Diagnosed with Obesity**

| Available Treatment Options | N | Percent (%) |
|---|---|---|
| Self-directed diet and nutrition changes | 428 | 74.4 |
| Self-directed exercise changes | 418 | 72.7 |
| Nutrition counseling | 325 | 56.5 |
| Anti-obesity medications | 196 | 34.1 |
| Physical therapy | 194 | 33.7 |
| Counseling, including Intensive Behavioral Therapy | 175 | 30.4 |
| Metabolic and/or bariatric surgery | 153 | 26.6 |
| Not applicable | 83 | 14.4 |
| Other | 35 | 6.1 |
| None | 27 | 4.7 |
| **Total** | **575** | **100** |

*2022 AAPA Survey on the Treatment of Obesity*
*"Which treatment options are available for a patient diagnosed with obesity in your practice?"*

**Table 13 Referrals or Use of Treatments for Patients Diagnosed with Obesity**

| Change in Treatment | Total | Not within Scope | Among Those with Experience | | |
|---|---|---|---|---|---|
| | | | No, Would Not Consider | No, Would Consider | Yes, Do This |
| | N | | Percent (%) | | |
| Self-directed diet and nutrition changes | 575 | 57 | 1.5 | 12.2 | 86.3 |
| Self-directed exercise changes | 574 | 55 | 1.2 | 11.4 | 87.5 |
| Nutrition counseling | 577 | 69 | 0.4 | 17.5 | 82.1 |
| Physical therapy | 575 | 83 | 3.5 | 50.8 | 45.7 |
| Counseling, including Intensive Behavioral Therapy | 573 | 85 | 2.7 | 50.8 | 46.4 |
| Anti-obesity medications | 573 | 172 | 9.0 | 42.6 | 48.4 |
| Metabolic/bariatric surgery | 575 | 148 | 5.9 | 32.1 | 62.1 |

*2022 AAPA Survey on the Treatment of Obesity*
*"Have you, or would you, prescribe or refer the following treatments for patients diagnosed with obesity in your practice?"*

**Table 14. Percent of Patients with Adequate Medical Coverage for Anti-Obesity Medications**

| Coverage for Anti-Obesity Medications | N | Percent (%) |
|---|---|---|
| 0% | 16 | 2.8 |
| 1% to 25% | 152 | 26.5 |
| 26% to 50% | 85 | 14.8 |
| 51% to 75% | 41 | 7.1 |
| 76% to 100% | 10 | 1.7 |
| **Subtotal** | **304** | **53.0** |
| Do Not Know | 270 | 47.0 |
| **Total** | **574** | **100** |

*2022 AAPA Survey on the Treatment of Obesity*
*"Approximately what percent of your patients diagnosed with obesity have adequate medical coverage for anti-obesity medications?"*

**Table 15. Anticipated Changes if Treatment in Adequate Medical Coverage for Anti-Obesity Medication Existed**

| Recommendation Change | N | Among PAs Who Rec. Medication | Among All |
|---|---|---|---|
| | | Percent (%) | |
| More Often | 289 | 78.7 | 50.0 |
| No Change | 76 | 20.7 | 13.1 |
| Less Often | 2 | 0.5 | 0.3 |
| **Subtotal Among PAs Who Recommend Medication** | **367** | **100.0** | **63.5** |
| I do not recommend this treatment option | 24 | NA | 4.2 |
| This is not an option in my practice | 187 | NA | 32.4 |
| **Subtotal Among PAs Who Do Not Recommend Medication** | **211** | **NA** | **36.5** |
| **Total** | **578** | **NA** | **100** |

*2022 AAPA Survey on the Treatment of Obesity*
*"How would your treatment change if your patients diagnosed with obesity had adequate medical coverage for anti-obesity medications?*

**Table 16. Top Barriers to Prescribing Self-Directed Diet and Nutrition Changes**

| Barriers to Prescribing Self-Directed Diet and Nutrition Changes | Largest barrier | Second largest barrier | Third largest barrier |
|---|---|---|---|
| | N | | |
| Total | 536 | 502 | 528 |
| None of the above | 12 | 6 | 89 |
| | Percent (%) | | |
| Limited availability to this in my location | 2.1 | 3.4 | 5.2 |
| Too expensive for patient population | 7.6 | 10.5 | 9.1 |
| Not covered/reimbursed by health insurance | 4.6 | 7.1 | 8.9 |
| Ineffective for clinically significant weight reduction | 12.4 | 9.9 | 10.0 |
| Does not improve comorbidities (e g , diabetes) | 1.3 | 4.0 | 2.7 |
| Outside of scope of practice, requires referral | 6.5 | 3.8 | 5.5 |
| Patients are resistant to this | **43.9** | **22.0** | **16.9** |
| Do not want to offend patient by bringing up their weight | 5.0 | 9.1 | **15.5** |
| Time restraints within my practice | 14.5 | **26.6** | **18.9** |
| Other | 2.1 | 3.6 | 7.3 |

*2022 AAPA Survey on the Treatment of Obesity*
*What are the top three barriers to prescribing self-directed diet and nutrition changes?*
*The number of respondents who indicated that there was no barrier is included alongside the overall total number of respondents. The percent of respondents reflects only those who indicated that there was a barrier.*

**Table 17. Top Barriers to Prescribing Self-Directed Exercise Changes**

| Barriers to Prescribing Self-Directed Exercise Change | Largest barrier | Second largest barrier | Third largest barrier |
|---|---|---|---|
| | N | | |
| Total | 537 | 478 | 505 |
| None of the above | 12 | 8 | 88 |
| | Percent (%) | | |
| Limited availability to this in my location | 4.2 | 5.7 | 3.8 |
| Too expensive for patient population | 4.4 | 9.1 | 7.4 |
| Not covered/reimbursed by health insurance | 3.0 | 7.4 | 9.6 |
| Ineffective for clinically significant weight reduction | 10.3 | 11.1 | 11.3 |
| Does not improve comorbidities (e g , diabetes) | 0.4 | 2.6 | 1.4 |
| Outside of scope of practice, requires referral | 5.5 | 3.4 | 5.8 |
| Patients are resistant to this | **53.7** | **20.9** | **16.3** |
| Do not want to offend patient by bringing up their weight | 5.0 | 8.9 | **14.1** |
| Time restraints within my practice | 12 | **26.6** | **19.2** |
| Other | 1.5 | 4.3 | 11.0 |

*2022 AAPA Survey on the Treatment of Obesity*
*What are the top three barriers to prescribing self-directed exercise changes?*
*The number of respondents who indicated that there was no barrier is included alongside the overall total number of respondents. The percent of respondents reflects only those who indicated that there was a barrier.*

**Table 18. Top Barriers to Prescribing Nutrition Counseling**

| Barriers to Prescribing Nutrition Counseling | Largest barrier | Second largest barrier | Third largest barrier |
|---|---|---|---|
| | N | | |
| Total | 532 | 472 | 472 |
| None of the above | 18 | 9 | 69 |
| | Percent (%) | | |
| Limited availability to this in my location | **17.5** | 12.5 | 9.4 |
| Too expensive for patient population | 9.5 | **16.4** | 11.4 |
| Not covered/reimbursed by health insurance | **17.5** | **18.4** | **14.1** |
| Ineffective for clinically significant weight reduction | 2.7 | 5.2 | 5.7 |
| Does not improve comorbidities (e g , diabetes) | 0.4 | 0.2 | 1.2 |
| Outside of scope of practice, requires referral | 13.2 | 6.3 | 6.9 |
| Patients are resistant to this | **25.3** | **21.2** | **21.8** |
| Do not want to offend patient by bringing up their weight | 3.7 | 3.9 | 7.7 |
| Time restraints within my practice | 10.1 | 13.2 | 12.9 |
| Other | 0.0 | 2.8 | 8.7 |

*2022 AAPA Survey on the Treatment of Obesity*
*What are the top three barriers to prescribing nutrition counseling?*
*The number of respondents who indicated that there was no barrier is included alongside the overall total number of respondents. The percent of respondents reflects only those who indicated that there was a barrier.*

**Table 19. Top Barriers to Prescribing Physical Therapy**

| Barriers to Prescribing Physical Therapy | Largest barrier | Second largest barrier | Third largest barrier |
|---|---|---|---|
| | N | | |
| Total | 526 | 445 | 446 |
| None of the above | 31 | 11 | 77 |
| | Percent (%) | | |
| Limited availability to this in my location | 11.1 | 8.5 | 7.3 |
| Too expensive for patient population | **17.8** | **21.4** | 13.3 |
| Not covered/reimbursed by health insurance | **22.4** | **20** | 14.6 |
| Ineffective for clinically significant weight reduction | 5.7 | 6.5 | 6.5 |
| Does not improve comorbidities (e g , diabetes) | 0.6 | 3.0 | 3.3 |
| Outside of scope of practice, requires referral | **15.8** | 6.7 | 9.5 |
| Patients are resistant to this | **19.6** | **18.4** | **23.8** |
| Do not want to offend patient by bringing up their weight | 2.0 | 4.1 | 5.4 |
| Time restraints within my practice | 3.4 | 7.4 | 8.9 |
| Other | 1.6 | 3.9 | 7.3 |

*2022 AAPA Survey on the Treatment of Obesity*
*What are the top three barriers to prescribing physical therapy?*
*The number of respondents who indicated that there was no barrier is included alongside the overall total number of respondents. The percent of respondents reflects only those who indicated that there was a barrier.*

**Table 20. Top Barriers to Prescribing Counseling, Including Intensive Behavioral Therapy**

| Barriers to Prescribing Counseling, Including Intensive Behavioral Therapy | Largest barrier | Second largest barrier | Third largest barrier |
|---|---|---|---|
| | N | | |
| Total | 535 | 458 | 456 |
| None of the above | 17 | 9 | 51 |
| | Percent (%) | | |
| Limited availability to this in my location | **25.9** | 12.0 | 10.4 |
| Too expensive for patient population | 10.8 | **21.4** | 12.8 |
| Not covered/reimbursed by health insurance | 12.2 | **23.6** | **17.0** |
| Ineffective for clinically significant weight reduction | 1.4 | 4.0 | 3.7 |
| Does not improve comorbidities (e g , diabetes) | 0.6 | 1.6 | 3.5 |
| Outside of scope of practice, requires referral | **17.8** | 6.5 | 9.4 |
| Patients are resistant to this | **24.3** | **17.6** | **23.5** |
| Do not want to offend patient by bringing up their weight | 2.9 | 3.1 | 4.4 |
| Time restraints within my practice | 3.5 | 7.1 | 9.4 |
| Other | 0.8 | 3.1 | 5.9 |

*2022 AAPA Survey on the Treatment of Obesity*
*What are the top three barriers to prescribing Intensive Behavioral Therapy?*
*The number of respondents who indicated that there was no barrier is included alongside the overall total number of respondents. The percent of respondents reflects only those who indicated that there was a barrier.*

**Table 21. Top Barriers to Prescribing Anti-Obesity Medications**

| Barriers to Prescribing Anti-Obesity Medications | Largest barrier | Second largest barrier | Third largest barrier |
|---|---|---|---|
| | N | | |
| Total | 531 | 426 | 426 |
| None of the above | 22 | 13 | 86 |
| | Percent (%) | | |
| Limited availability to this in my location | 3.1 | 4.1 | 7.6 |
| Too expensive for patient population | 17.5 | **29.8** | **15.0** |
| Not covered/reimbursed by health insurance | **25.7** | **29.3** | **12.1** |
| Ineffective for clinically significant weight reduction | 1.8 | 2.2 | 5.3 |
| Does not improve comorbidities (e g , diabetes) | 1.4 | 2.2 | 2.1 |
| Outside of scope of practice, requires referral | **35.8** | 6.1 | 7.6 |
| Patients are resistant to this | 4.1 | 10.2 | **16.5** |
| Do not want to offend patient by bringing up their weight | 2.6 | 4.6 | 5.3 |
| Time restraints within my practice | 2.9 | 5.6 | **12.9** |
| Other | 5.1 | 6.1 | **15.6** |

*2022 AAPA Survey on the Treatment of Obesity*
*What are the top three barriers to prescribing anti-obesity medications?*
*The number of respondents who indicated that there was no barrier is included alongside the overall total number of respondents. The percent of respondents reflects only those who indicated that there was a barrier.*

**Table 22. Top Barriers to Prescribing Metabolic/Bariatric Surgery**

| Barriers to Prescribing Metabolic/Bariatric Surgery | Largest barrier | Second largest barrier | Third largest barrier |
|---|---|---|---|
| | N | | |
| Total | 539 | 427 | 422 |
| None of the above | 26 | 14 | 71 |
| | Percent (%) | | |
| Limited availability to this in my location | 9.9 | 7.7 | 11.4 |
| Too expensive for patient population | 12.3 | **26.4** | 14.0 |
| Not covered/reimbursed by health insurance | 16.4 | **19.9** | 13.4 |
| Ineffective for clinically significant weight reduction | 1.0 | 0.7 | 1.4 |
| Does not improve comorbidities (e g , diabetes) | 0.6 | 2.2 | 0.3 |
| Outside of scope of practice, requires referral | **33.5** | 12.1 | 11.7 |
| Patients are resistant to this | **16.6** | 13.6 | **21.1** |
| Do not want to offend patient by bringing up their weight | 3.1 | 5.3 | 7.1 |
| Time restraints within my practice | 3.3 | 7.3 | 8.8 |
| Other | 3.3 | 4.8 | 10.8 |

*2022 AAPA Survey on the Treatment of Obesity*
*What are the top three barriers to prescribing metabolic/bariatric surgery?*
*The number of respondents who indicated that there was no barrier is included alongside the overall total number of respondents. The percent of respondents reflects only those who indicated that there was a barrier.*

**Table 23. Resources Which May Increase Prescribing Medications to Treat Obesity**

| Resources | N | Percent (%) |
|---|---|---|
| Ensuring treatments are covered and/or reimbursed by health insurance | 383 | 67.1 |
| Less expensive obesity treatments | 305 | 53.4 |
| Education on clinical outcomes of obesity treatments | 267 | 46.8 |
| More time with patients | 261 | 45.7 |
| Regular webinars/trainings on obesity treatments | 240 | 42.0 |
| Easier referral process to other specialties | 227 | 39.8 |
| More effective obesity treatments | 219 | 38.4 |
| Availability of more obesity treatments | 205 | 35.9 |
| Treatments that specifically address comorbidities (e.g., diabetes) | 184 | 32.2 |
| Weight bias and stigma training | 175 | 30.6 |
| Availability of newer obesity treatments | 111 | 19.4 |
| None of the above | 62 | 10.9 |
| Other | 19 | 3.3 |
| **Total** | **571** | **100** |

*2022 AAPA Survey on the Treatment of Obesity*
*"What would help you prescribe obesity treatments to your patients? Select all that apply"*

**Table 24. Respondent Characteristics**

| Characteristic | N | Percent (%) |
|---|---|---|
| **Length of time you have been a PA** | | |
| 0 to 1 year | 71 | 12.3 |
| 2 to 4 years | 113 | 19.6 |
| 5 to 9 years | 139 | 24.1 |
| 10 to 14 years | 91 | 15.8 |
| 15 to 19 years | 64 | 11.1 |
| 20 or more years | 98 | 17.0 |
| **Total** | **576** | **100** |
| **Gender** | | |
| I prefer not to answer | 6 | 1.0 |
| Male | 145 | 25.2 |
| Female | 425 | 73.8 |
| **Total** | **576** | **100** |
| **Race** | | |
| I prefer not to answer | 18 | 3.1 |
| White | 464 | 80.3 |
| Black/African American | 12 | 2.1 |
| American Indian or Alaskan Native | 1 | 0.2 |
| Asian | 62 | 10.7 |
| Native Hawaiian or Other Pacific Islander | 1 | 0.2 |
| Two or more races | 14 | 2.4 |
| Other | 6 | 1.0 |
| **Total** | **578** | **100** |
| **Ethnicity** | | |
| I prefer not to answer | 17 | 2.9 |
| No | 537 | 92.9 |
| Yes | 24 | 4.2 |
| Total | 578 | 100 |
| Geographic area | | |
| I prefer not to answer | 4 | 0.7 |
| Urban (population 1,000,000+) | 122 | 21.1 |
| Large city (population 100,000 to 1,000,000) | 176 | 30.5 |
| Mid-size city (population 50,000 to 99,999) | 118 | 20.5 |
| Large town (population 10,000 to 49,999) | 89 | 15.4 |
| Small town (population 2,500 to 9,999) | 53 | 9.2 |
| Isolated rural (population | 15 | 2.6 |
| **Total** | **577** | **100** |
| **AAPA Member status** | | |
| Yes | 433 | 75.7 |
| No | 124 | 21.7 |
| I do not know | 15 | 2.6 |
| **Total** | **572** | **100** |

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**Table 25. Respondent Practice Characteristics**

| Characteristics | N | Percent (%) |
|---|---|---|
| **Specialty** | | |
| Primary care | 160 | 27.8 |
| Surgical subspecialties | 141 | 24.5 |
| Other specialties | 139 | 24.1 |
| Internal medicine subspecialties | 60 | 10.4 |
| Emergency medicine | 41 | 7.1 |
| Obesity medicine | 9 | 1.6 |
| Pediatric subspecialties | 5 | 0.9 |
| No medical specialty | 21 | 3.6 |
| **Total** | **576** | **100** |
| **Employer** | | |
| Hospital (including academic medical center) | 212 | 36.9 |
| Physician practice: Single specialty group | 145 | 25.3 |
| Physician practice: Multispecialty group | 67 | 11.7 |
| Physician practice: Solo practice | 30 | 5.2 |
| Federally Qualified Health Center | 20 | 3.5 |
| Other | 100 | 17.4 |
| **Total** | **574** | **100** |
| **Setting** | | |
| Outpatient clinic or physician office | 328 | 57.0 |
| Hospital | 183 | 31.8 |
| Urgent care center | 25 | 4.3 |
| Other | 39 | 6.8 |
| **Total** | **575** | **100** |
| **Size of Setting** | | |
| Sole practitioner | 26 | 4.5 |
| 2-5 practitioners | 185 | 32.2 |
| 6-10 practitioners | 113 | 19.7 |
| 11-30 practitioners | 123 | 21.4 |
| 31-100 practitioners | 51 | 8.9 |
| 101 or more practitioners | 77 | 13.4 |
| **Total** | **575** | **100** |

*2022 AAPA Survey on the Treatment of Obesity*