Walter Reed
National Military
Medical Center

# The Role of Psychology in Weight Management

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# Why is there a psychologist in the weight management program?


- This is a ***multidisciplinary weight management program*** designed to assess and treat all factors that impact weight
- Consistent with "best care" practices for addressing weight
- Psychologists are experts in ***behavior***, as well as ***thoughts*** and ***feelings***, all of which play a role in weight

# Why is weight loss important to you?

| Health | | Feel Good | | Size/Appearance |
|---|---|---|---|---|
| **I would improve my health.** | | I would have more energy. | | My clothes would fit better. |
| **I could prevent, reverse, or slow the progression of disease such as diabetes.** | | I would feel better about myself. | | I would feel more comfortable in social situations. |
| **I could stop taking or reduce medications (e.g., cholesterol, diabetes).** | | I would be a more active parent/grandparent/friend. | | I would fit more easily into seats and other spaces. |
| **I would have fewer aches and pains.** | | I would feel more in control. | | I would look better in clothes. |
| **I would increase the chance that I will live longer.** | | I would be a good example for my family and friends. | | I would feel more attractive. |
| **I would decrease my chances of having a stroke or heart attack.** | | I would spend less money on fast/junk food. | | I would pass my fitness/tape test. |

Others:

# Calories in, calories out?


**Weight Maintained**

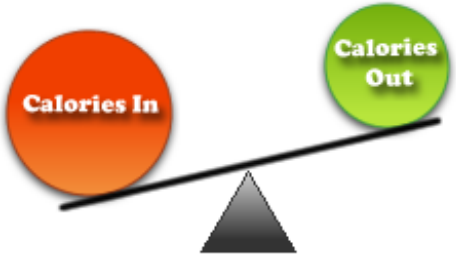
**Isocaloric Balance**

Energy In = Energy Out


**Weight Loss**

**Negative Caloric Balance**

Energy In < Energy Out




**Weight Gain**

**Positive Caloric Balance**

Energy In > Energy Out

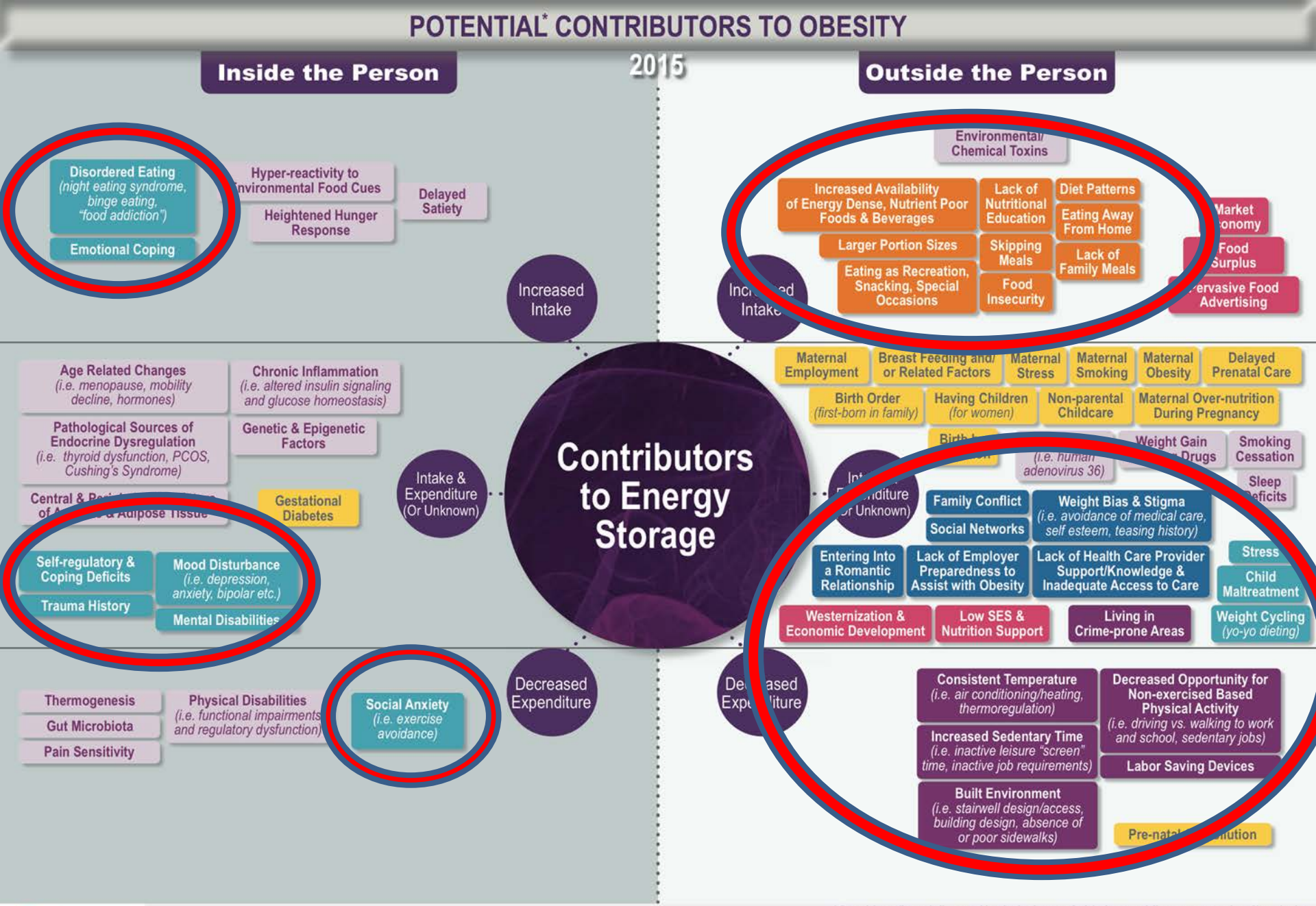
**It's not this simple! There are many potential contributors to consider…**

# POTENTIAL* CONTRIBUTORS TO OBESITY

2015

## Inside the Person

## Outside the Person




OBESITY SOCIETY
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Environmental Pressures on Physical Activity · Biological/ Medical · Maternal/ Developmental · Economic · Food and Beverage Behavior/Environment · Psychological · Social

* Potential contributors indicate anything that has been put forth in the research literature as a question of investigation and is not intended to be a verification of whether or not; or the extent to which, each may or may not contribute.

# 2. Diagnostic Categories

BASED ON BMI + SCREENING FOR WEIGHT-RELATED COMPLICATIONS

| NORMAL WEIGHT | STAGE 0 | STAGE 1 | STAGE 2 |
|---|---|---|---|
| No obesity | No complications | One or more mild-to-moderate complications or may be treated effectively with moderate weight loss | At least one severe complication or requires more aggressive weight loss for effective treatment |
| **BMI <25**<br><23 IN CERTAIN ETHNICITIES | **BMI 25–29.9**<br>OVERWEIGHT<br>**BMI ≥30**<br>OBESITY | **BMI ≥25** | **BMI ≥25** |

# 3. Treatment Based on Clinical Judgment

| PRIMARY | SECONDARY | TERTIARY | TERTIARY |
|---|---|---|---|
| • Healthy meal plan<br>• Physical activity<br>• Health education<br>• Built environment | • Lifestyle/behavioral therapy<br>• Consider pharmacotherapy if lifestyle alone not effective | • Lifestyle/behavioral therapy<br>• Consider pharmacotherapy (BMI ≥27) | • Lifestyle/behavioral therapy<br>• Adjunctive pharmacotherapy (BMI ≥27)<br>• Consider bariatric surgery (BMI ≥35) |

# 3. Treatment Based on Clinical Judgment

## LIFESTYLE THERAPY

Evidence-based lifestyle therapy for treatment of obesity should include 3 components

| MEAL PLAN | PHYSICAL ACTIVITY | BEHAVIOR |
|---|---|---|
| • Reduced-calorie healthy meal plan<br>• ~500–750 kcal daily deficit<br>• Individualize based on personal and cultural preferences<br>• Meal plans can include: Mediterranean, DASH, low-carb, low-fat, volumetric, high protein, vegetarian<br>• Meal replacements<br>• Very low-calorie diet is an option in selected patients and requires medical supervision<br><br>Team member or expertise: dietitian, health educator | • Voluntary aerobic physical activity progressing to >150 minutes/week performed on 3–5 separate days per week<br>• Resistance exercise: single-set repetitions involving major muscle groups, 2–3 times per week<br>• Reduce sedentary behavior<br>• Individualize program based on preferences and take into account physical limitations<br><br>Team member or expertise: exercise trainer, physical activity coach, physical/occupational therapist | An interventional package that includes any number of the following:<br>• Self-monitoring (food intake, exercise, weight)<br>• Goal setting<br>• Education (face-to-face meetings, group sessions, remote technologies)<br>• Problem-solving strategies<br>• Stimulus control<br>• Behavioral contracting<br>• Stress reduction<br>• Psychological evaluation, counseling, and treatment when needed<br>• Cognitive restructuring<br>• Motivational interviewing<br>• Mobilization of social support structures<br><br>Team member or expertise: health educator, behaviorist, clinical psychologist, psychiatrist |

# Behavior/Health Psychology

- Change is hard! Health Psychology helps you put recommendations into action in the face of inevitable barriers.
- Can help with:
  - Increasing/maintaining motivation
  - Developing new routines/setting goals
  - Addressing binge/emotional/night eating
  - Learning skills to manage stress
  - Improving sleep
  - Managing mood or unhelpful thinking that undermines your efforts
  - Learning problem solving to overcome barriers
  - Dealing with unhelpful people
  - Keeping you accountable

# Pre-surgical psychological evaluation

- **We want people having surgery to have the best possible outcomes. The goal of the evaluation is to determine whether now is the right time for you, and if there are any other resources that can best help you achieve your goals**

- Topics covered include:
  - Weight history and past weight loss attempts
  - Current/past mental health and substance use
  - Medical history and adherence
  - Eating and exercise behaviors
  - Knowledge and expectations
  - Social support

# Pre-surgical psychological evaluation

- We use the evaluation to give one of four recommendations:
  - Psychologically stable for surgery, can receive further services on an as-needed basis.
  - Psychologically stable for surgery, but should continue with or engage in services.
  - Delayed decision pending further evaluation or treatment.
  - Not a surgical candidate on the basis of currently active, serious psychopathology and/or evidence of repeated poor adherence.

# Common concerns after surgery

- Depression
- Loss of eating as a coping strategy
- Eating behaviors – excessive grazing/loss of control
- Changes to social relationships
- Body image
- Addictions
- Unmet weight loss expectations
- Other unmet expectations – surgery won't fix everything!

# Factors associated with best outcomes

- Adherence to diet and exercise recommendations
- Self-monitoring
- Attending follow up appointments
- Support group attendance

# Get started today

- Keep track of your activity and food intake.  All of it!
- Weigh yourself regularly (every day or every week)
- Work on mindful eating
- Begin making habit of daily exercise time and non-exercise activity
- Improve your sleep
- Set at least one SMART goal today
  - Specific
  - Measurable
  - Action-oriented
  - Realistic
  - Time-specific
- Let us know if you would like to meet with Health Psychology to help you reach your goals

# Questions?

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# A few words on medications…

- Medications for weight management are potentially an option for:
  - Active duty
  - BMI > 25 and one or more serious weight-related medical issues that require aggressive intervention
  - BMI >25 who have been working on lifestyle therapy for at least 8 weeks and would benefit from added intervention
- Important that medication is part of a multidisciplinary treatment plan!

# WEIGHT-LOSS MEDICATIONS APPROVED BY THE FDA FOR LONG-TERM TREATMENT OF OBESITY

## ORLISTAT

(Xenical™) | (Alli™) – OTC | 1999

| Mechanism of Action, Study Name, Study Duration: % TBWL Greater Than Placebo | Dose | Common Side Effects | Contraindications, Cautions, and Safety Concerns<br>✓ Contraindication<br>• Warning, Safety Concern | Monitoring and Comments |
|---|---|---|---|---|
| Lipase inhibitor<br><br>XENDOS<br><br>**1 yr: 4.0%**<br>**4 yr: 2.6%** | 120 mg PO TID (before meals)<br><br>OTC: 60 mg PO TID (before meals) | • Steatorrhea<br>• Fecal urgency<br>• Incontinence<br>• Flatulence<br>• Oily spotting<br>• Frequent bowel movements<br>• Abdominal pain<br>• Headache | ✓ Pregnancy and breastfeeding<br>✓ Chronic malabsorption syndrome<br>✓ Cholestasis<br>✓ Oxalate nephrolithiasis<br><br>• Rare severe liver injury<br>• Cholelithiasis<br>• Malabsorption of fat-soluble vitamins<br>• Effects on other medications:<br>  • Warfarin (enhance)<br>  • Antiepileptics (decrease)<br>  • Levothyroxine (decrease)<br>  • Cyclosporine (decrease) | **Monitor for:**<br>• Cholelithiasis<br>• Nephrolithiasis<br><br>- Recommend standard multivitamin (to include vitamins A, D, E, and K) at bedtime or 2 hours after orlistat dose<br>- Eating >30% kcal from fat results in greater GI side effects<br>- FDA-approved for children ≥12 years old<br>- Administer levothyroxine and orlistat 4 hours apart |

# WEIGHT-LOSS MEDICATIONS APPROVED BY THE FDA FOR LONG-TERM TREATMENT OF OBESITY

## LIRAGLUTIDE 3 MG

(Saxenda®) | 2014

| Mechanism of Action, Study Name, Study Duration: % TBWL Greater Than Placebo | Dose | Common Side Effects | Contraindications, Cautions, and Safety Concerns<br>✓ Contraindication<br>• Warning, Safety Concern | Monitoring and Comments |
|---|---|---|---|---|
| GLP-1 analog<br><br>SCALE Obesity & Prediabetes<br><br>**1 yr: 5.6%** | **Titrate dose weekly by 0.6 mg as tolerated by patient (side effects):**<br><br>0.6 mg SC QD→<br>1.2 mg SC QD→<br>1.8 mg SC QD→<br>2.4 mg SC QD→<br>3.0 mg SC QD | • Nausea<br>• Vomiting<br>• Diarrhea<br>• Constipation<br>• Headache<br>• Dyspepsia<br>• Increased heart rate | ✓ Pregnancy and breastfeeding<br>✓ Personal or family history of medullary thyroid cancer or MEN2<br>✓ Pancreatitis<br>✓ Acute gallbladder disease<br><br>• Gastroparesis<br>• Severe renal impairment can result from vomiting and dehydration<br>• Use caution in patients with history of pancreatitis<br>• Use caution in patients with cholelithiasis<br>• Suicidal ideation and behavior<br>• Injection site reactions | **Monitor for:**<br>• Pancreatitis<br>• Cholelithiasis and Cholecystitis<br>• Hypoglycemia in patients having T2DM treated with insulin and/or sulfonylureas<br>• Increased heart rate<br>• Dehydration from nausea/vomiting<br>• Injection site reactions<br><br>- Titrate dose based on tolerability (nausea and GI side effects) |

# WEIGHT-LOSS MEDICATIONS APPROVED BY THE FDA FOR LONG-TERM TREATMENT OF OBESITY

## PHENTERMINE / TOPIRAMATE ER

(Qsymia®) | 2012

| Mechanism of Action, Study Name, Study Duration: % TBWL Greater Than Placebo | Dose | Common Side Effects | Contraindications, Cautions, and Safety Concerns<br>✓ Contraindication<br>• Warning, Safety Concern | Monitoring and Comments |
|---|---|---|---|---|
| NE-releasing agent (phentermine)<br><br>GABA receptor modulation (topiramate)<br><br>EQUIP<br>CONQUER<br>SEQUEL<br><br>**1 yr: 8.6%-9.3% on high dose; 6.6% on treatment dose**<br><br>**2 yr: 8.7% on high dose; 7.5% on treatment dose** | **Starting dose:**<br>3.75/23 mg PO QD for 2 weeks<br><br>**Recommended dose:**<br>7.5/46 mg PO QD<br><br>**Escalation dose:**<br>11.25/69 mg PO QD<br><br>**Maximum dose:**<br>15/92 mg PO QD<br><br>5% goal at 12 wks | • Headache<br>• Paresthesia<br>• Insomnia<br>• Decreased bicarbonate<br>• Xerostomia<br>• Constipation<br>• Nasopharyngitis<br>• Anxiety<br>• Depression<br>• Cognitive impairment (concentration and memory)<br>• Dizziness<br>• Nausea<br>• Dysgeusia | ✓ Pregnancy and breastfeeding (topiramate teratogenicity)<br>✓ Hyperthyroidism<br>✓ Acute angle-closure glaucoma<br>✓ Concomitant MAOI use (within 14 days)<br><br>• Tachyarrhythmias<br>• Decreased cognition<br>• Seizure disorder<br>• Anxiety and panic attacks<br>• Nephrolithiasis<br>• Hyperchloremic metabolic acidosis<br>• Dose adjustment with hepatic and renal impairment<br>• Concern for abuse potential<br>• Combined use with alcohol or depressant drugs can worsen cognitive impairment | **Monitor for:**<br>• Increased heart rate<br>• Depressive symptomatology or worsening depression especially on maximum dose<br>• Hypokalemia (especially with HCTZ or furosemide)<br>• Acute myopia and/or ocular pain<br>• Acute kidney stone formation<br>• Hypoglycemia in patients having T2DM treated with insulin and/or sulfonylureas<br><br>- Potential for lactic acidosis (hyperchloremic non-anion gap) in combination with metformin<br>- MAOI (allow ≥14 days between discontinuation)<br>- 15 mg/92 mg dose should not be discontinued abruptly (increased risk of seizure); taper over at least 1 week<br>- Health care professional should check ßHCG before initiating, followed by monthly self-testing at home<br>- Monitor electrolytes and creatinine before and during treatment<br>- Can cause menstrual spotting in women taking birth control pills due to altered metabolism of estrogen and progestins |

## WEIGHT-LOSS MEDICATIONS APPROVED BY THE FDA FOR LONG-TERM TREATMENT OF OBESITY

### LORCASERIN
(Belviq®) | 2012

| Mechanism of Action, Study Name, Study Duration: % TBWL Greater Than Placebo | Dose | Common Side Effects | Contraindications, Cautions, and Safety Concerns<br>✓ Contraindication<br>• Warning, Safety Concern | Monitoring and Comments |
|---|---|---|---|---|
| Serotonin (5HT2c) receptor agonist<br><br>BLOSSOM<br>BLOOM<br><br>**1 yr: 3.0%-3.6%**<br>**2 yr: 3.1%** | 10 mg PO BID | • Headache<br>• Nausea<br>• Dizziness<br>• Fatigue<br>• Xerostomia<br>• Dry eye<br>• Constipation<br>• Diarrhea<br>• Back pain<br>• Nasopharyngitis<br>• Hyperprolactin-emia | ✓ Pregnancy and breastfeeding<br>✓ Serotonin syndrome or neuroleptic malignant syndrome<br><br>• Safety data lacking in patients who have depression<br>• Concomitant use of SSRI, SNRI, MAOI, bupropion, St. John's wort as may increase risk of developing serotonin syndrome<br>• Uncontrolled mood disorder<br>• Cognitive impairment<br>• Avoid in patients with severe liver injury or renal insufficiency<br>• Caution with patients with bradycardia, heart block, or heart failure<br>• Unproven concern for potential cardiac valvulopathy<br>• Leukopenia | **Monitor for:**<br>• Symptoms of cardiac valve disease<br>• Bradycardia<br>• Serotonin syndrome<br>• Neuroleptic malignant syndrome<br>• Depression<br>• Severe mood alteration, euphoria, dissociative state<br>• Confusion/somnolence<br>• Priapism<br>• Leukopenia<br>• Euphoria at high doses could predispose to abuse<br>• Hypoglycemia in patients having T2DM treated with insulin and/or sulfonylureas |

# WEIGHT-LOSS MEDICATIONS APPROVED BY THE FDA FOR LONG-TERM TREATMENT OF OBESITY

## NALTREXONE ER / BUPROPION ER

(Contrave®) | 2014

| Mechanism of Action, Study Name, Study Duration: % TBWL Greater Than Placebo | Dose | Common Side Effects | Contraindications, Cautions, and Safety Concerns<br>✓ Contraindication<br>• Warning, Safety Concern | Monitoring and Comments |
|---|---|---|---|---|
| Opiate antagonist (naltrexone)<br><br>Reuptake inhibitor of DA and NE (bupropion)<br><br>COR-I<br>COR-II<br>COR-BMOD<br><br>**1 yr: 4.2%-5.2%** | **Titrate dose:**<br><br>**Week 1:**<br>1 tab (8/90 mg) PO QAM<br><br>**Week 2:**<br>1 tab (8/90 mg) PO BID<br><br>**Week 3:**<br>2 tabs (total 16/180 mg) PO QAM and 1 tab (8/90 mg) PO QHS<br><br>**Week 4:**<br>2 tabs (total 16/180 mg) PO QHS | • Nausea<br>• Headache<br>• Insomnia<br>• Vomiting<br>• Constipation<br>• Diarrhea<br>• Dizziness<br>• Anxiety<br>• Xerostomia | ✓ Pregnancy and breastfeeding<br>✓ Uncontrolled hypertension<br>✓ Seizure disorder<br>✓ Anorexia nervosa<br>✓ Bulimia nervosa<br>✓ Severe depression<br>✓ Drug or alcohol withdrawal<br>✓ Concomitant MAOI (within 14 days)<br>✓ Chronic opioid use<br><br>• Cardiac arrhythmia<br>• Dose adjustment for liver and kidney impairment<br>• Narrow-angle glaucoma<br>• Uncontrolled migraine disorder<br>• Generalized anxiety disorder<br>• Bipolar disorder<br>• Safety data lacking in patients who have depression<br>• Seizures (bupropion lowers seizure threshold) | **Monitor for:**<br>• Increased heart rate and blood pressure<br>• Worsening depression and suicidal ideation<br>• Worsening of migraines<br>• Liver injury (naltrexone)<br>• Hypoglycemia in patients having T2DM treated with insulin and/or sulfonylureas<br>• Seizures (bupropion lowers seizure threshold)<br><br>- MAOI (allow ≥14 days between discontinuation)<br>- Dose adjustment for patients with renal and hepatic impairment<br>- Avoid taking medication with a high-fat meal<br>- Can cause false positive urine test for amphetamine<br>- Bupropion inhibits CYP2D6 |