

Challenges of Treating Co-Morbid Depression and Obesity

SHERYL L. PAGGIO PHD

UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL

CO-MORBID OBESITY AND DEPRESSION

- **POPULATION STUDIES REVEAL THAT OBESITY IS ASSOCIATED WITH INCREASED RISK FOR DEPRESSION (SIMON ET AL 2006; PEHY ET AL 2008) AND VICE VERSA (SCOTT ET AL 2008)**
- **HIGH RATES OF DEPRESSION IN CLINIC SAMPLES ABOUT 1/3 OF WEIGHT TREATMENT SEEKING OBESSE ADULTS IN THE U MASS WEIGHT CENTER MET DSM-IV CRITERIA FOR MAJOR DEPRESSION (PAGOTO ET AL 2007)**
- **PATIENTS WITH MAJOR DEPRESSION LOST 40% LESS WEIGHT THAN THEIR NONDEPRESSED COUNTERPARTS (PAGOTO ET AL 2007)**

CLINIC VERSUS EVIDENCE

- **LOW RATES OF DEPRESSION IN LARGE WEIGHT LOSS STUDIES**
 - **MEAN BDI-II IN THE DIABETES PREVENTION PROGRAM = 4.6 (SD = 4.5), ONLY 10% HAD SCORES \geq 11**
 - **MEAN BDI-II IN THE LOOK AHEAD TRIAL = 5.7 (SD = 5.0)**
- **EVIDENCE PROVIDES LITTLE GUIDANCE ABOUT WEIGHT LOSS IN DEPRESSED PATIENTS**

Challenges of Weight Loss in Women with Depression

1. Treatment timing for weight and depression

2. Patient preference is to NOT directly deal with their depression

"If I could only lose weight, I wouldn't be depressed."

3. Adherence Will women with depression be able to adhere to intensive lifestyle intervention?

Treatment Timing

- **Can you treat two problems at once?**
- **Simultaneous health risk behavior interventions have been shown to be superior to single health risk behavior interventions (*Appel et al 2003; Prochaska et al 2005; Prochaska et al 2004*)**
- **How about depression?**

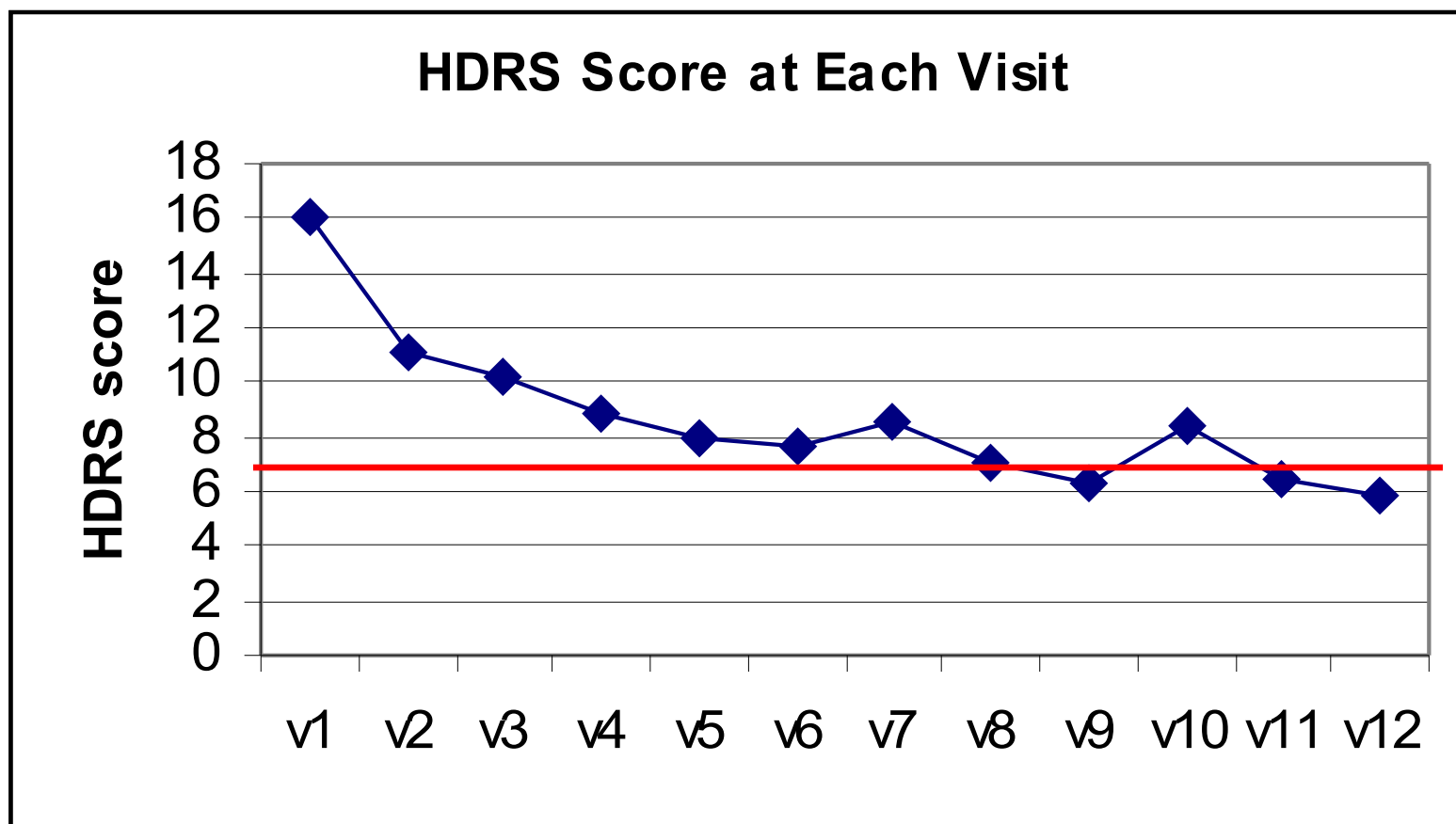
The Be Active! Pilot Study

- **SIMULTANEOUS DEPRESSION AND NUTRITION COUNSELING**
- **N= 14 PARTICIPANTS (79% FEMALE, 86% CAUCASIAN)**
- **3 MONTHS OF SIMULTANEOUS BEHAVIOR THERAPY FOR DEPRESSION (INDIVIDUAL) AND NUTRITION COUNSELING (GROUP)**

ACS IRG # 93-033

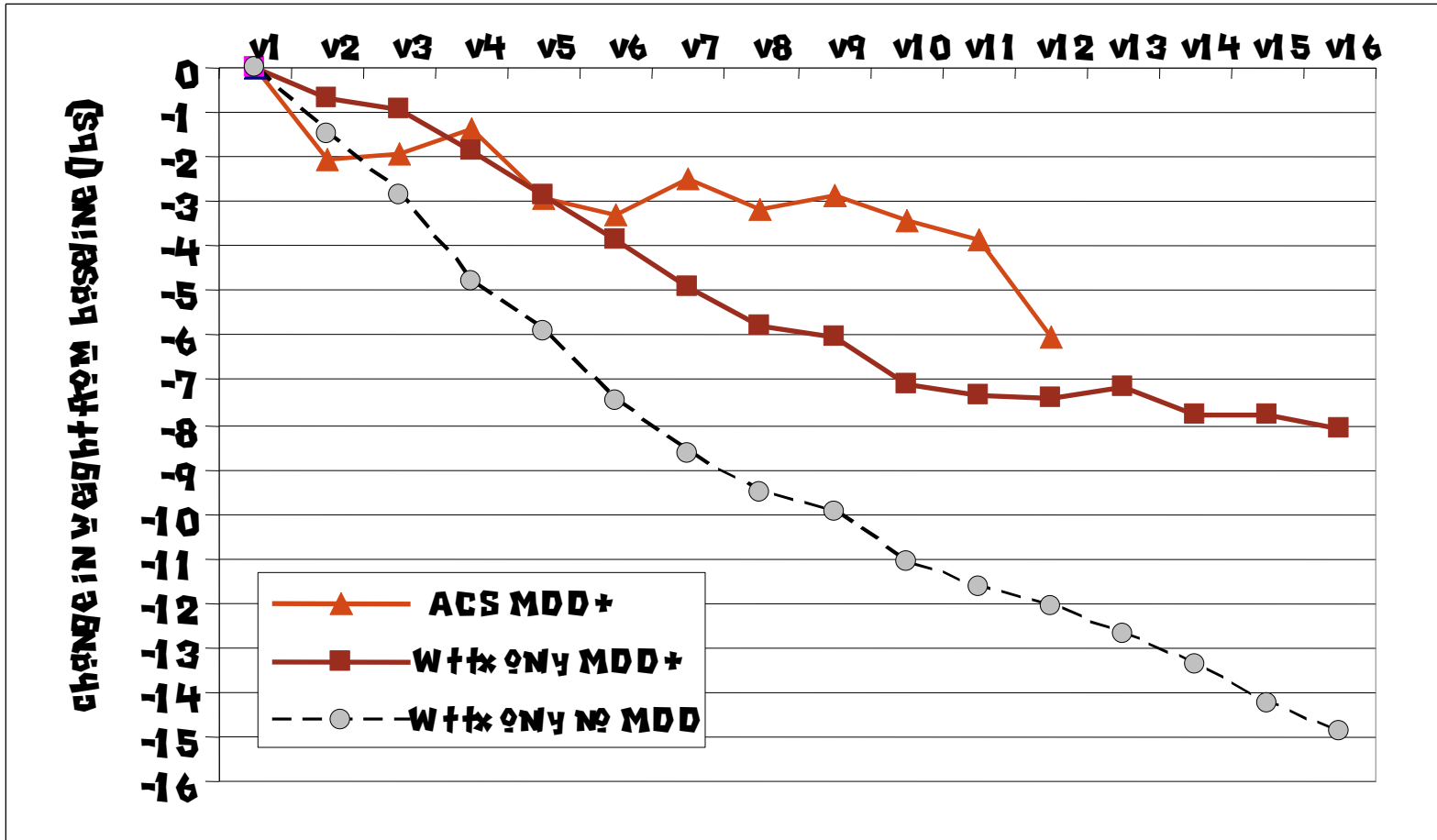
Pagoto, Bodenlos, Schneider, Olenzki, Spates & Ma, 2008, *Psychotherapy*

DEPRESSION OUTCOMES



 **CUTOFF FOR REMISSION**

Weight outcomes



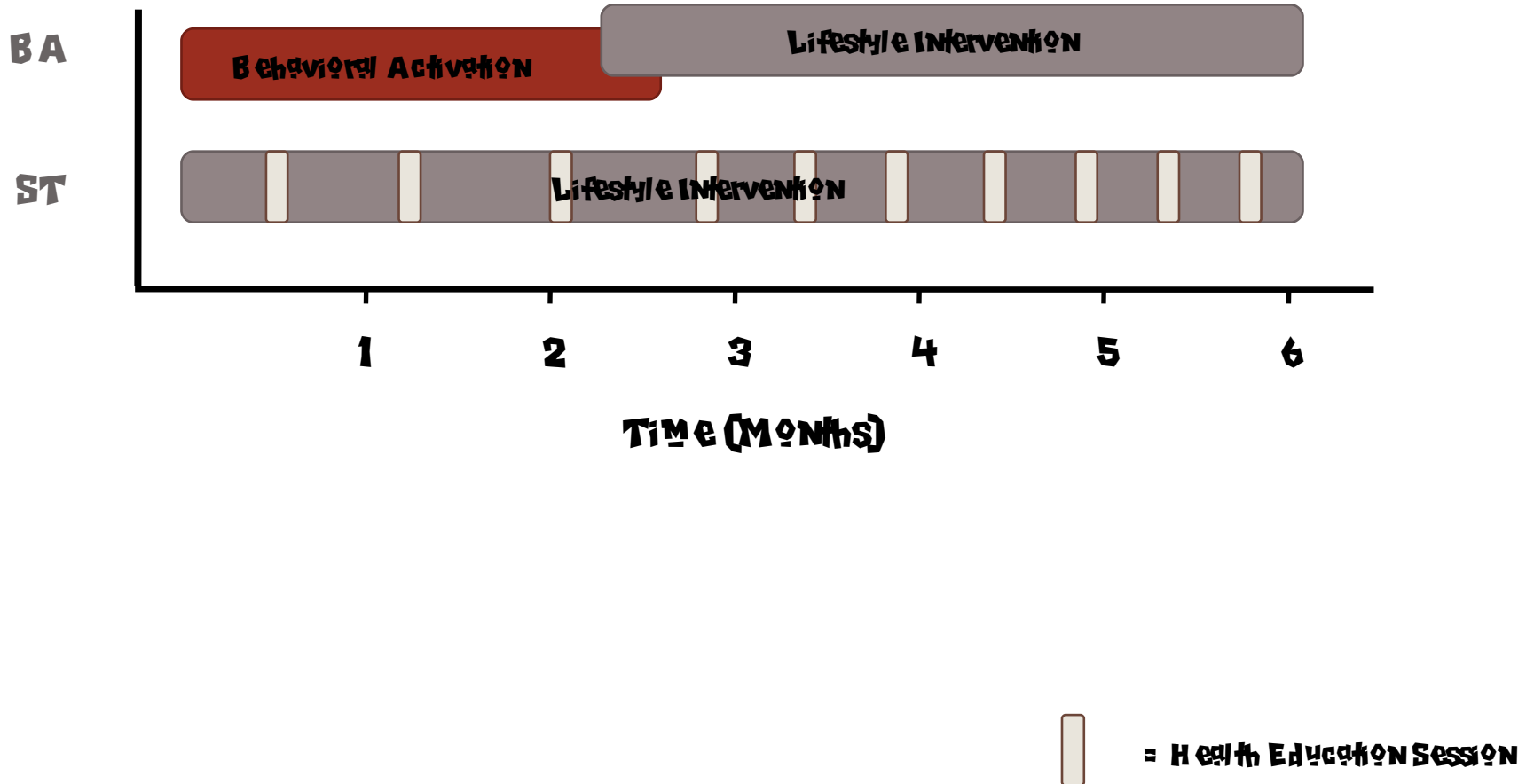
Results?

- **SIMULTANEOUS depression and nutrition intervention was effective for depression but weight loss outcomes were no better than weight treatment only in depressed samples**
- **Weight loss outcomes still insufficient**
- ***“Treatment ended just as I was beginning to lose weight!”***
- **Sequential approach, treat the depression first?**

Be Active! Study

- **RANDOMIZED clinical trial targeting obese women with major depressive disorder (N= 174)**
- **Study aims**
 - **Does treating depression with behavior therapy prior to a weight loss intervention improve weight loss outcome compared to weight loss intervention alone?**
- **Be Active Condition**
 - **10 weeks of behavior therapy, DPP lifestyle intervention begins at week 8.**
- **Standard Condition**
 - **DPP lifestyle intervention with attention control (health education) to balance contact**

INTERVENTION TIMELINE: CORE PHASE



Results?

- Trial is still underway
- 52 participants have reached 6 months follow-up
- Two challenges
 - Patient preferences
 - Adherence (Session attendance)

Patient Preferences

- Evidence-based practice suggests that the evidence, clinical judgment and patient preferences be weighed in making treatment decisions
- Patient preference can conflict with clinical judgment and/or evidence
- Typically, weight treatment is a higher priority for patients than depression
- Using a sequential approach need patient to agree to delay weight loss treatment for several weeks to months
- Will you miss the motivational window of opportunity to intervene on weight by delaying weight treatment to focus on

Case Study: Gina

41 year old Caucasian woman, stay at home mom (former accountant, hoping to return to her work) with 2 young children (ages 4 and 7), husband is withdrawn from family and household responsibilities

Baseline BMI = 33 (194 lbs), Hamilton Depression Rating Score = 24 (moderate-high), Dx of MDD, dysthymia (7 years), GAD, and past alcohol abuse

Significant insomnia.

Randomized to behavior therapy condition and expressed some disappointment to therapist about random assignment

It's not the depression, it's my weight. Once I lose weight, I will feel better."

GINA'S BEHAVIOR THERAPY

- Behavior therapy requires patient to self-monitor daily activities and moods for several weeks to identify relationships between what she is doing and how she is feeling
- She then set goals to increase activities associated with feeling better, and reduce activities associated with depressed moods
- Gina's activities: Sleep hygiene, looking for job opportunities, spending time with children, socializing with girlfriends, having set time away from kids, walking, telling husband how she feels
- Agreed that weight-loss-related activities (e.g., physical activity) can be on the behavior therapy agenda

- **The A-H a! Moment-- When she accomplished activity goals over the weeks, her mood improved, even though her weight had NOT changed**
- **Shifted her perception of depression as consequence of her weight to depression as a driving factor**
- ***When I feel depressed, I am inactive, I have no energy or motivation, and I eat all the time."***

Case outcome

- **Attended 10 of 10 behavior therapy sessions, and 14 of 16 weight loss sessions**
- **She began to lose weight during weight loss treatment phase**
- **At 6-month follow-up her BMI fell from 33 to 31 (loss of 16 lbs), Hamilton score down to 19 (from 24)**
- **At 1-year follow-up her BMI fell to 30 (lost total of 19 lbs from baseline), Hamilton score of 8, maintained an exercise program of 75 minutes of walking daily**

CONCLUSION

- Although the patient might prefer a treatment sequence or to ignore the depression, the therapist can still exercise some options
 - Agree with patient that weight loss could improve mood, but caution that it can sometimes worsen mood
 - Expand use of self-monitoring beyond diet and physical activity
 - Increase the salience of mood-behavior relationships
 - Reversing belief from weight improving mood, to mood improving weight (and motivation to lose weight)
 - Greater opportunity to feel better if changing many different things (not just weight) improves mood

Treatment Adherence

- Of the 52 Be Active! participants, mean number of visits attended = 15.53 out of total of 24 visits or about 65% attendance rate
- Depression severity at baseline and 6-months was not significantly associated with attendance.
- Adherence in an intensive trial worse than real world???
- In the UMass Weight Center Diabetes Prevention Program
- Depressed patients (n= 44) attended mean= 12.75 out of 16 total visits or about 80% of visits
- Non-depressed patients (n= 87) attended mean= 13.54 of 16 visits or about 85% of visits
- Cost: Clinic program cost \$800, Be Active! is free
- Program length: Adherence was only tracked in clinic through 16th visit (significantly declined past this point)

Case study: Karen

51 year old Caucasian woman, married, formerly employed as a nurse but recently quit to care for her ailing father.

Father recently had a stroke and requires regular care, but refuses to go to assisted living. She provides his full time care, cooking, cleaning. Father is critical and outwardly insulting about her weight. He threatens to cut her out of the will if she doesn't care for his needs.

One adult son repeatedly borrows money, then squanders it. He makes her feel guilty for not helping with his financial needs.

She would like to return to work, but feels like this would increase the stress in her life.

Baseline weight 210 lbs, Beck Depression Inventory-II = 21 (moderate severity)

She attended 14 of 24 sessions. Misses sessions due to home/family/difficulty juggling obligations. After missing for 2+ weeks at a time she is responsive to telephone counseling efforts to re-engage her.

She reports enjoying sessions and benefiting from program. She has continued to self-monitor her dietary intake, even when she does not come to session.

At 6 months, her weight was 199 lbs (loss of 11 lbs) and BDI = 2 (remission).

CONCLUSIONS

- We know greater treatment intensity is more effective, but attendance declines over time
- Reasons for nonattendance include scheduling conflicts, life stressors/obligations, stress (difficulty setting aside time for self)

CONCLUSIONS

- **Time consuming to draw participants back in requires multiple individual contacts which aren't possible in the clinic setting**
- **More convenient and efficient methods are needed for keeping this population engaged in treatment (tele-counseling, web-based, etc)**
- **Interventions that help patients make time to take care of self**

SUMMARY POINTS

- **MORE RESEARCH IS NEEDED ON THE TIMING OF MULTIPLE TREATMENTS IN PATIENTS WITH PSYCHOLOGICAL AND MEDICAL COMORBIDITIES**
- **PATIENTS OFTEN HAVE STRONG BELIEFS ABOUT THE RELATIONSHIP BETWEEN PSYCHOLOGICAL PROBLEMS AND THEIR PHYSICAL CONDITION**
- **INTENSIVE TREATMENTS REQUIRING MULTIPLE IN-PERSON VISITS ARE CHALLENGING FOR PATIENTS WITH DEPRESSION**