# Low Literacy and Depression?

Barry D Weiss, MD
University of Arizona

### Depression and Low Literacy Shared Characteristics

### Low Literacy

- Worthlessness
- Shame
- Low self-esteem
- Poor self-efficacy
- External locus of control

### **Depression**

- Worthlessness
- Guilt or shame
- Low self-esteem
- Poor self-efficacy
- External locus of control



# The Question

 If depression and low literacy have similar characteristics, can improving literacy skills result in improvement in depression (in people who have both low literacy and depression)?

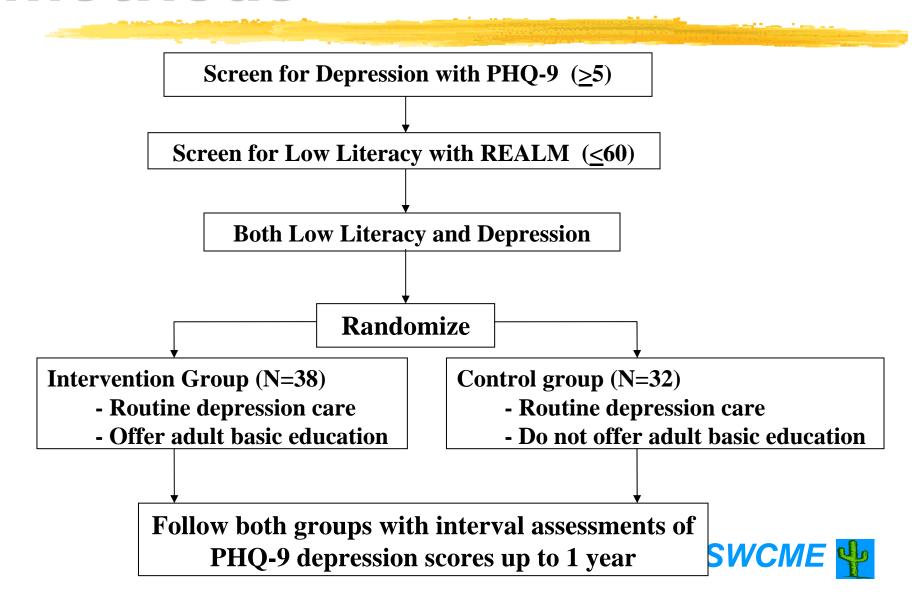


# **Objective**

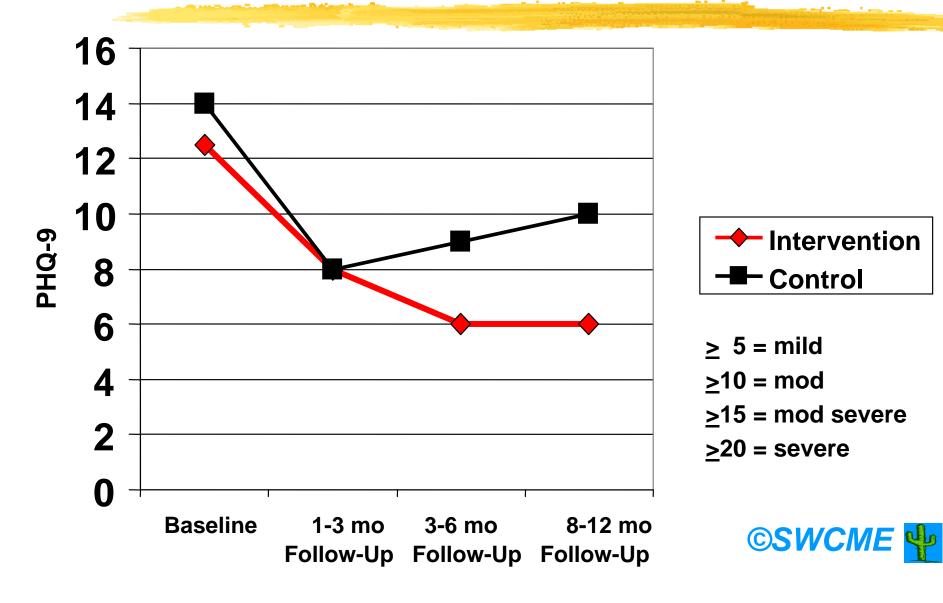
- Which is better for patients who have depression and low literacy?
  - Standard depression treatmentOR
  - Standard depression treatment plus literacy education



# Methods



# Results - Change in Depression Score



# Conclusion

 Adding literacy education to depression treatment (for people with both low literacy and depression) may result in better outcomes.



# Another Idea

#### **IF...**

- Low literacy is a risk factor for depression THEN....
- Is low literacy a risk for postpartum depression?
   AND IF THAT'S TRUE, AND IF
- "Treating" low literacy improves depression
   THEN MAYBE....
- Literacy education can lessen the risk or severity of postpartum depression?

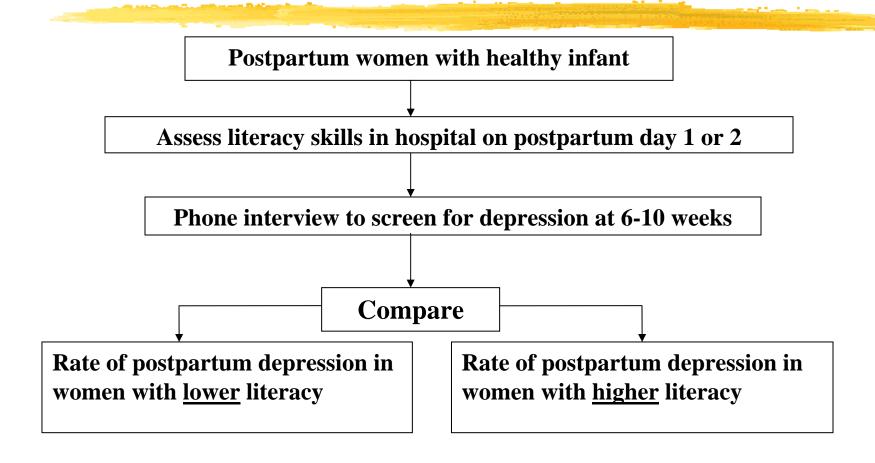


# **Objective**

 Determine if low literacy is a risk factor for postpartum depression



# Methods





<b>Nutrition Facts</b>	
Serving Size	½ cup
Servings per container	4
Amounts per serving	
Calories 250	Fat Cal 120
	%DV
Total Fat 13g	20%
Sat Fat 9g	40%
Cholesterol 28mg	12%
Sodium 55mg	2%
Total Carbohydrate 30g	12%
Dietary Fiber 2g	
Sugars 23g	
<b>Protein</b> 4g	8%

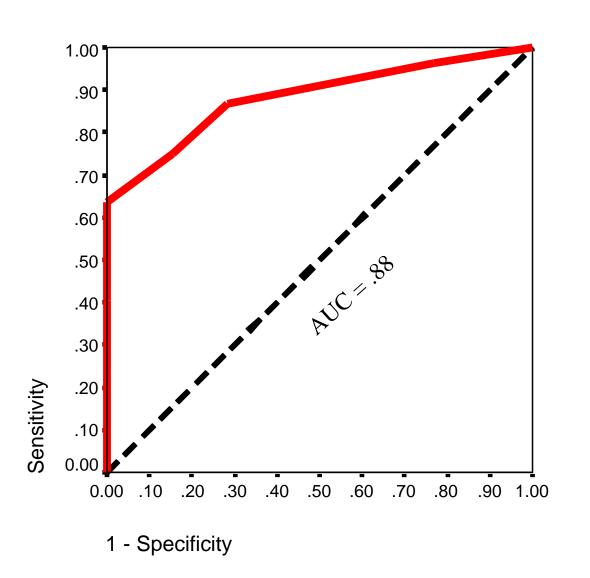
\*Percent Daily Values (DV) are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

Ingredients: Cream, Skim Milk, Liquid Sugar, Water, Egg Yolks, Brown Sugar, Milkfat, Peanut Oil, Sugar, Butter, Salt, Carrageenan, Vanilla Extract.

#### The Newest Vital Sign

Present the nutrition label to patient, and ask 6 questions

# Receiver-Operator Characteristics (ROC) Curve for the NVS





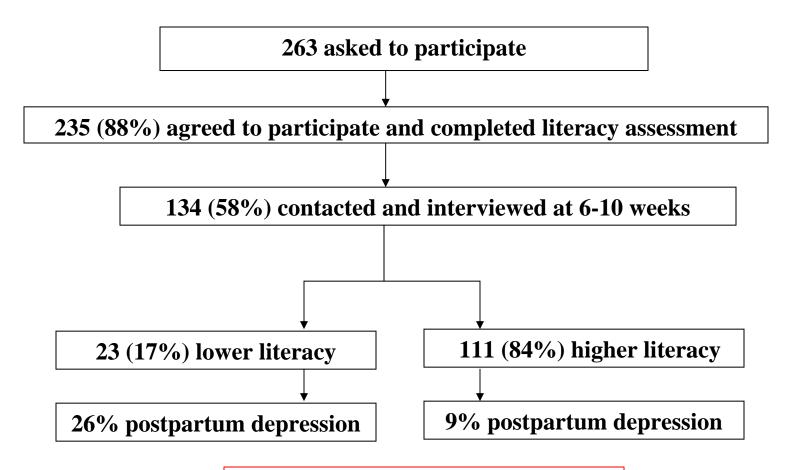
### Edinburgh Postnatal Depression Scale

Scores range from 0-30 Scores  $\geq$ 9 signify >92% chance of postpartum depression

#### In the past 7 days:

1.	I have been able to laugh and see the funny side of things   As much as I always could	*6.	Things have been getting on top of me  — Yes, most of the time I haven't been able
	□ Not quite so much now		to cope at all
	□ Definitely not so much now		☐ Yes, sometimes I haven't been coping as well
	□ Not at all		as usual
			No, most of the time I have copied quite well
2.	I have looked forward with enjoyment to things		□ No, I have been coping as well as ever
	□ As much as I ever did		,
	□ Rather less than I used to	*7	I have been so unhappy that I have had difficulty sleeping
	□ Definitely less than I used to		□ Yes, most of the time
	□ Hardly at all		□ Yes, sometimes
			□ Not very often
*3.	I have blamed myself unnecessarily when things		□ No, not at all
	went wrong		
	<ul> <li>Yes, most of the time</li> </ul>	*8	I have felt sad or miserable
	<ul> <li>Yes, some of the time</li> </ul>		□ Yes, most of the time
	□ Not very often		□ Yes, quite often
	□ No, never		□ Not very often
			□ No, not at all
4.	I have been anxious or worried for no good reason		
	□ No, not at all	*9	I have been so unhappy that I have been crying
	□ Hardly ever		□ Yes, most of the time
	<ul> <li>Yes, sometimes</li> </ul>		□ Yes, quite often
	□ Yes, very often		□ Only occasionally
			□ No, never
*5	I have felt scared or panicky for no very good reason		
	, I	*10	The thought of harming myself has occurred to me
	□ Yes, sometimes		□ Yes, quite often
	□ No, not much		□ Sometimes
	□ No, not at all		□ Hardly ever
			□ Never

# Results



**RR** = 2.67 (95% CI 1.23-5.77)



# Covariables

Characteristic	Significant?
Literacy	Yes
Mean Number of Children	Yes
Prior Depression	Borderline
Education	No
Employment	No
Ethnic Group	No
Primary Language	No ©SWCME

## Conclusion

- Low literacy appears to be a risk factor for postpartum depression
- May co-vary with number of children
- Implication maybe sending women with low literacy for literacy education during pregnancy will less the risk of postpartum depression??

