

The Relationship of Literacy With Trust of Physicians and Perceived Efficacy of Patient-Physician Interactions Among Mothers of Early Preterm Infants

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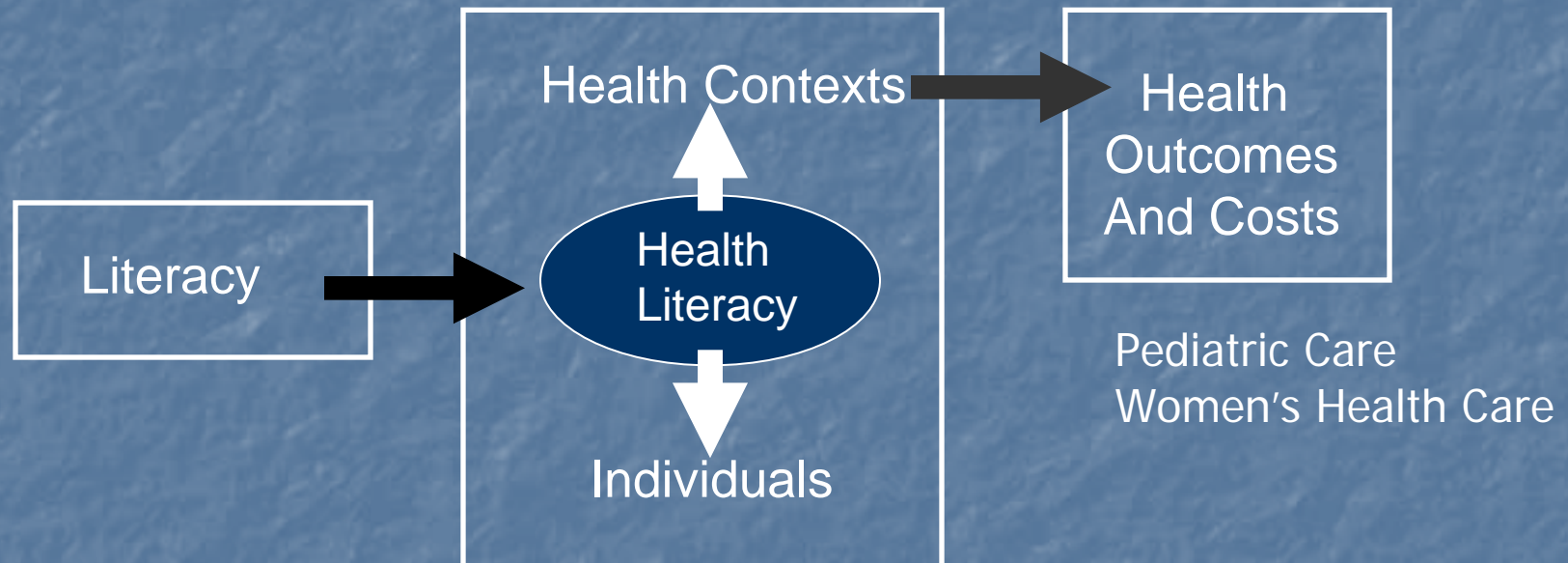
Drexel University School of Medicine, and
Children's Hospital of Philadelphia

Overview

- Preterm Birth:
 - Disparity parallels disparity in literacy
 - Risk of high utilization of care among infants
 - Requires complex care utilization (health, social services, work, etc.)
- Literacy and Care Utilization:
 - Generally associated with reduced care adherence
 - Maternal low literacy may be associated with specific obstacles to care utilization

Health Literacy Framework

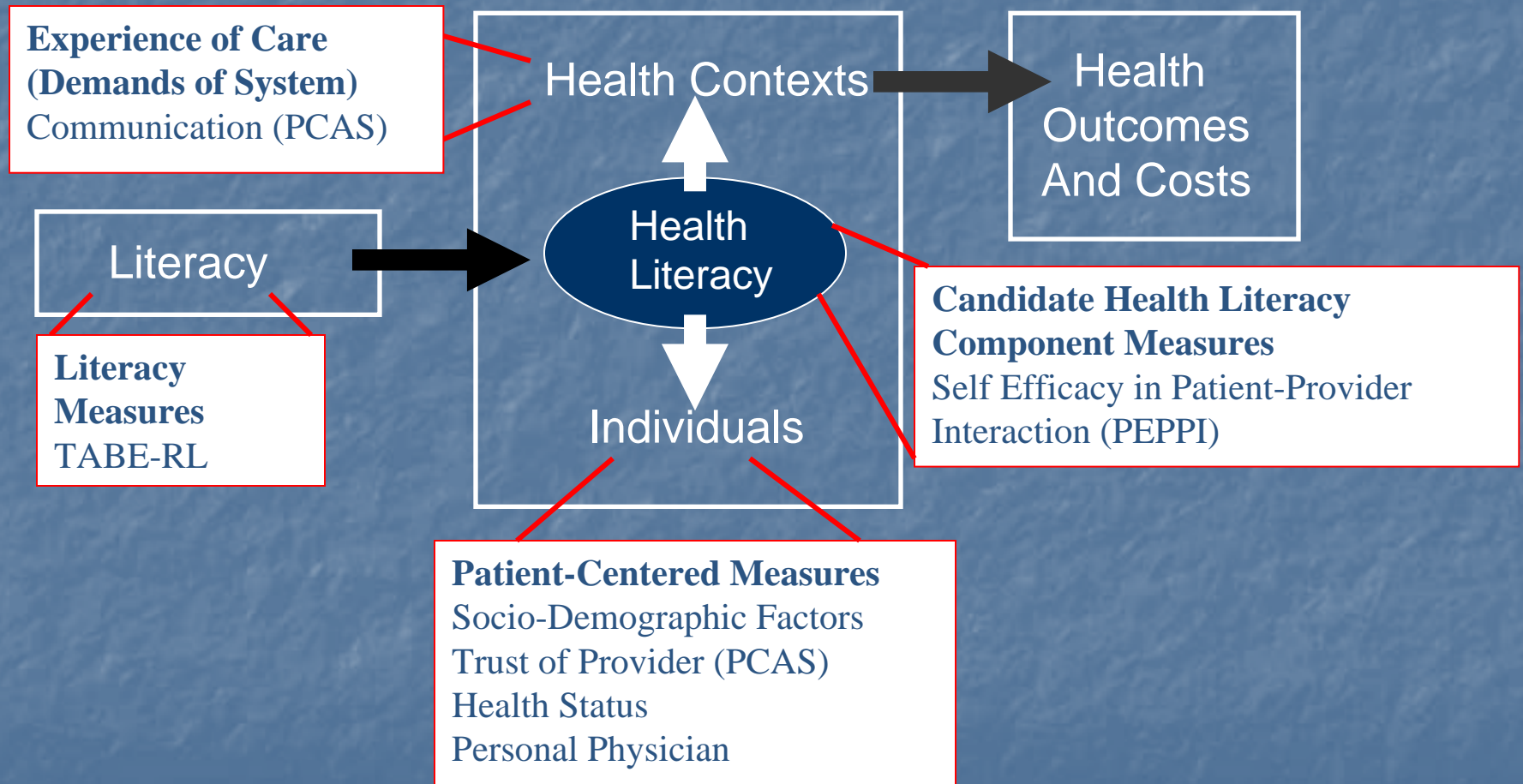
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1. Means of operationalizing a relationship between literacy and outcomes of interest to the health system,
2. Way to formulate novel interventions addressing needs of a vulnerable population.

Health Literacy Framework

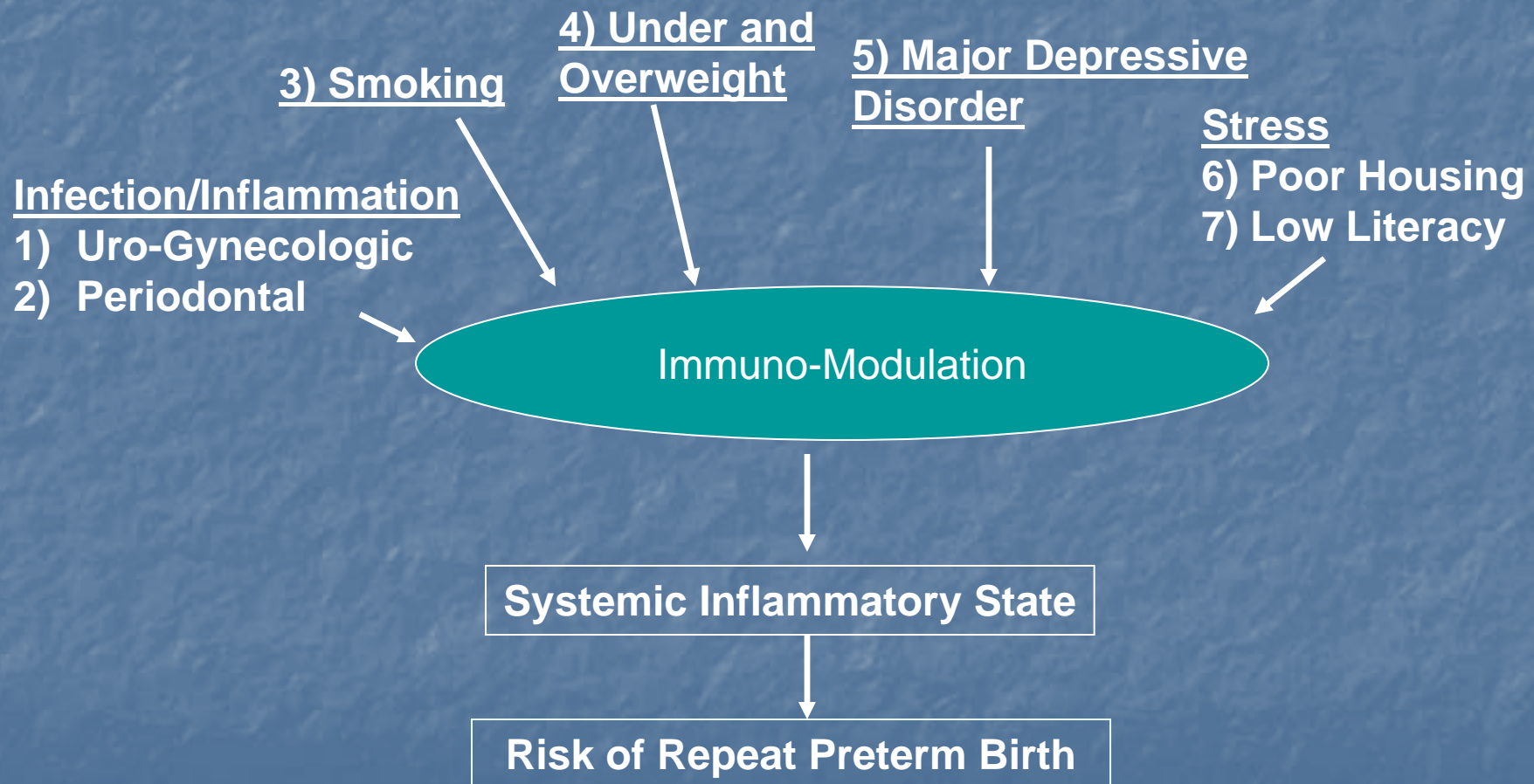
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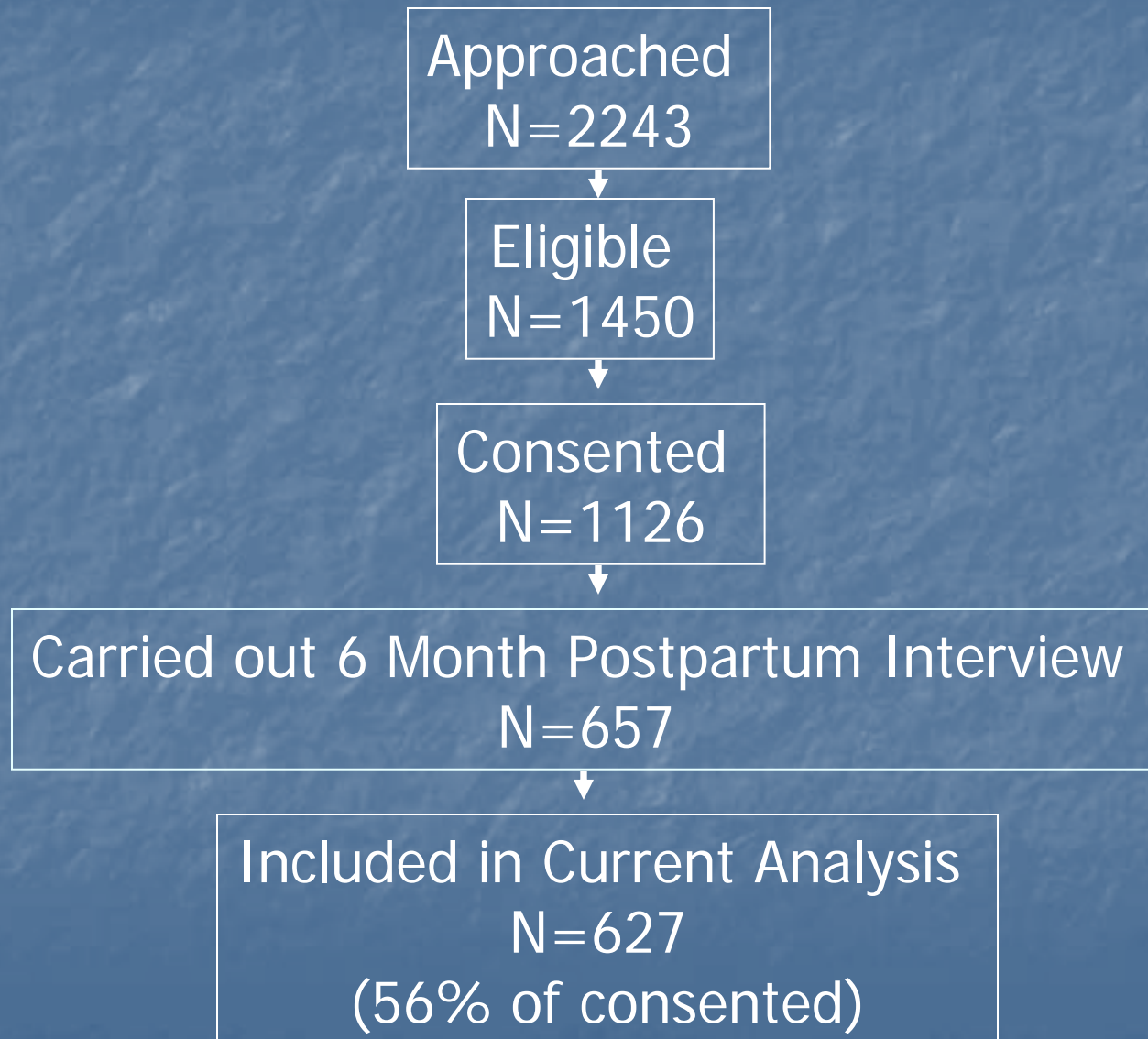
Preterm Prevention Project

- Jennifer F. Culhane, PI
- PA State Department of Health Grant
- Inter-pregnancy intervention to reduce the risk of repeat preterm birth
- Multi-faceted intervention focused on multiple risk factors among women with an early preterm infant

Conceptual Model for Interventions



Study Enrollment



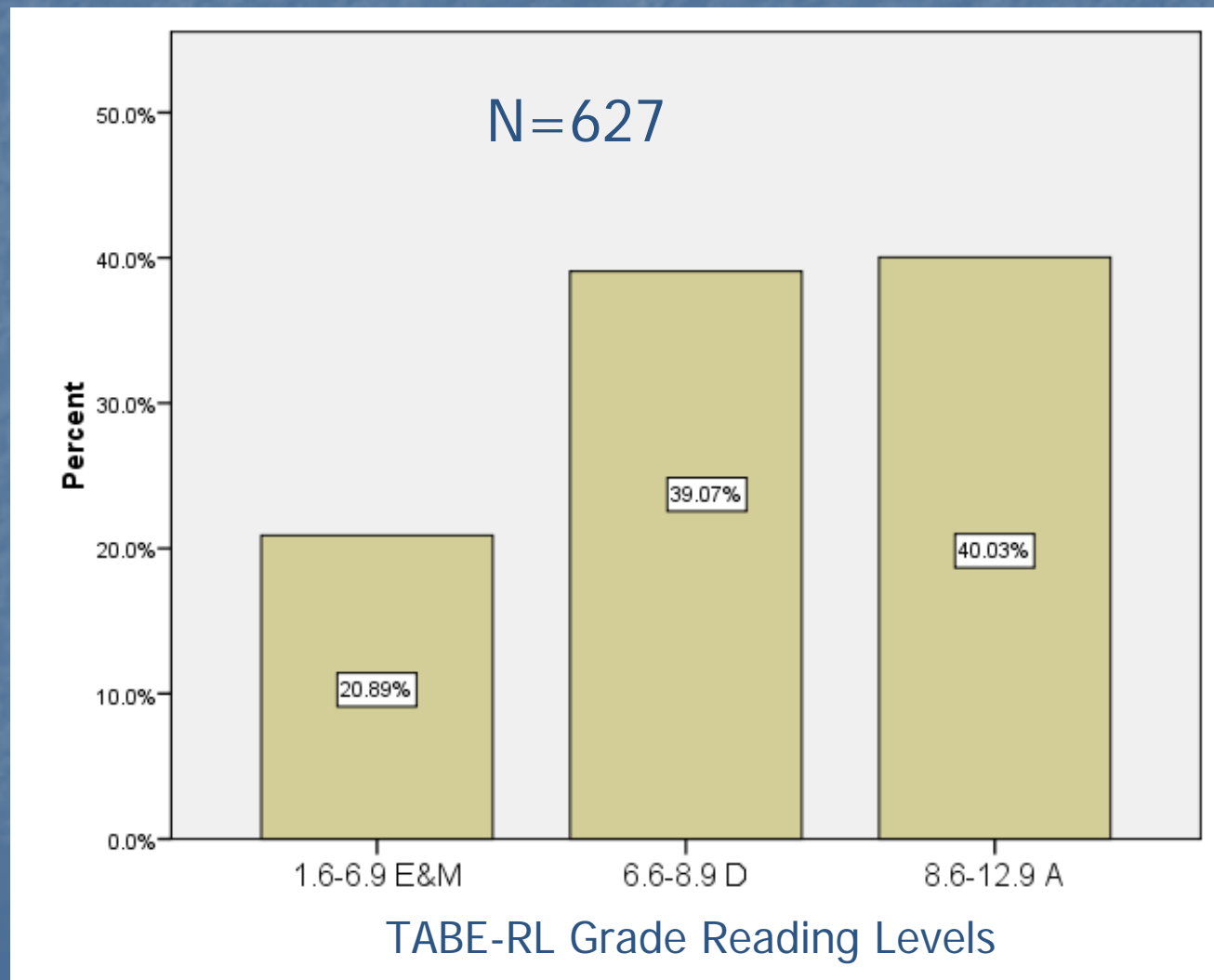
Participant Characteristics

Variable	Number (%)
African American	460 (74)
US Nativity	580 (93)
Medicaid Insurance	416 (66)
Unmarried	513 (82)
Ed. Attainment	
<High School Ed	200 (32)
HS/GED	242 (39)
Personal Physician	369 (59)

Measures

- Primary Care Assessment Survey (PCAS)
 - Physician Communication Sub-Scale (6 items)
 - Physician Trust Sub Scale (8 items)
- Perceived Efficacy of Patient-Physician Interaction (PEPPI)
 - 10 items "How confident are you..."
 - Questions, main concerns, make most of visit
- Test of Adult Basic Education Reading Test Locator (TABE-RL)
- Socio-Demographic Variables

Distribution of Reading Level in PPP



Measure Characteristics

Scale	Items	Mean (SD)	Score Range	Chron. Alpha
PCAS Communication	6	28.9 (5.7)	6-36	0.930
PCAS Trust	8	17.4 (5.2)	8-40	0.826
PEPPI Self Efficacy*	10	45.1 (5.3)	10-50	0.926

*Due to skewed distribution this measure was divided into quintiles for analyses.
All measures varied significantly by the TABE-RL score.

Pearson Correlations of Measures

	PCAS Communication	PCAS Trust	PEPPI
PCAS Communication	1		
PCAS Trust	-0.431	1	
PEPPI	0.519	-0.528	1

Distribution of Measures

Variable	Mean (SD)	Varied by TABE
PCAS Communication	28.9 (5.7)	$P < 0.001$
PCAS Trust	17.4 (5.2)	$P < 0.001$
PEPPI	45.1 (5.3)	$P = 0.001$

Regression Analysis For Literacy on PCAS Communication

Variable	Bivariate* beta (95% CI)	Fully Adjusted†* beta (95% CI)
TABE		
1.6-6.9	-2.18 (-3.52, -0.84)	-0.88 (-1.98, 0.22)
6.6-8.9	-1.18 (-2.25, -0.10)	-0.73 (-1.61, 0.16)
8.6-12.9	Ref	Ref

*Adjusted for potential socio-demographic, health status, and health behavior Confounders

†Adjusted for PCAS Trust, PEPPI, and presence of a personal physician.

Summary

- Low literacy is a challenge for a significant proportion of women with preterm birth
- Low literacy is associated with a number of characteristics hypothesized to contribute to obstacles to care
- The association of literacy with poor physician communication was eliminated by addition of measures of physician trust, self efficacy, and the presence of a personal physician

Future

- Assessment of care utilization outcomes
- Determine if health literacy interventions can modify responses to these measures

Thanks

- The PPP participants
- PPP Staff

Grant Support

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