



Veterans Health
Administration

Can Stories Improve Hypertension Management?

A randomized control trial

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Background

- African-Americans have higher rates of hypertension and uncontrolled hypertension compared to whites
- Educational behavioral interventions have had limited success in controlling blood pressure.
- African-American oral traditions make stories central to communication
- Narrative communication may be an important intervention strategy
 - Break down cognitive resistance through transportation and identification with stories
- Our prior study showed a significant effect of stories on BP outcomes in a single site, with an attention control

Hypothesis

Compared with an education-only
control,

A Stories-plus-education intervention
will result in lower blood pressure at
six-months

Methods

- Design: patient-level randomization, randomization stratified by site
- Participants:
 - 620 African-American patients uncontrolled BP
 - 3 US Department of Veterans Affairs Medical Centers
 - Control
 - DVD with didactic information about controlling BP
 - Intervention
 - Didactic information PLUS
 - African-American patients telling their success stories in controlling blood pressure



Willie



Richard



Danny



Morris



Patricia

Questions?

Learn More.....

What's next?

Methods

Data collection

- Surveys at baseline, immediately post-viewing of DVDs, and 6 month follow-up
- Blood pressure – baseline and 6- month follow-up
- Analysis
 - Linear regression with dependent variable follow-up blood pressure, independent variable groups assignment
 - Adjusted for baseline blood pressure and site

Participant Characteristics

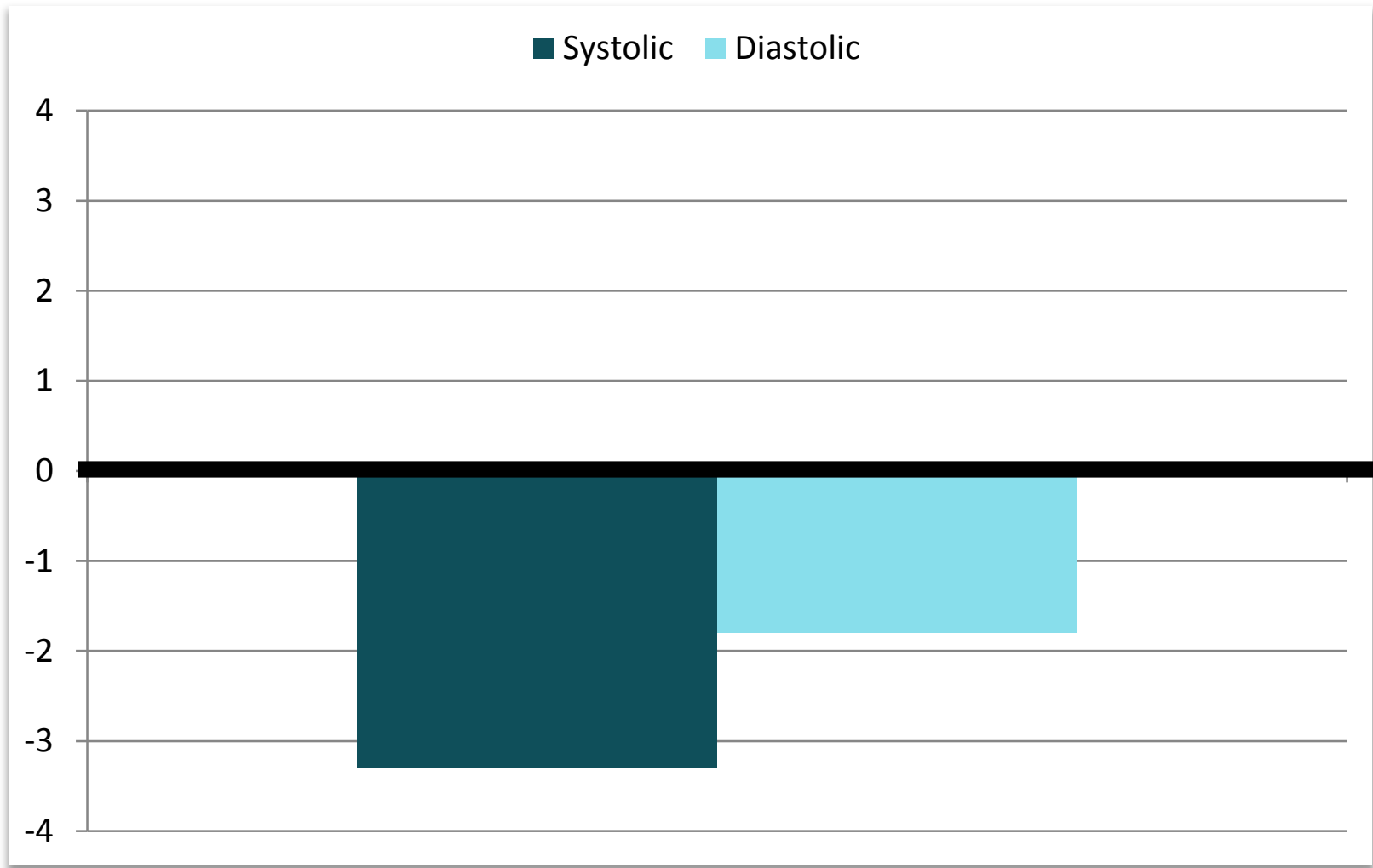
- 91% Male
- 91% >50 years old
- 47% Diabetes
- 92% High school graduate or beyond
- 53% earned < \$20,000/ yr.
- 22% unstably housed
- 35% did not think their BP was under control
- 25% had inadequate health literacy
- No significant differences between intervention and control groups

Results:

Transportation

Transportation Scale	I	C	P-value
	Mean (SD)	Mean (SD)	
The DVD affected me emotionally. **	4.3 (2.3)	3.2 (2.2)	<0.0001
The events in the DVD are relevant to my everyday life.	6.1 (1.6)	6.3 (1.4)	0.0782
I was mentally involved in the DVD while watching it.	6.6 (0.9)	6.5 (1.3)	0.1041
While I was watching the DVD, activity going on in the room around me was on my mind.	1.5 (1.5)	1.4 (1.3)	0.2034
I found my mind wandering while watching the DVD.	1.7 (1.5)	1.6 (1.5)	0.3487

Difference in BP (I vs. C) at six-months



Main Outcomes N= 526

All sites	BASELINE BLOOD PRESSURE			
ALL	SBP/DBP mean	(SD)		
Control	139.0/81.0	(18.1, 13.1)		
Intervention	137.8/80.2	(17.4/ 11.9)		
I/C Difference	-1.2/-0.8			
	ttest p =0.4/0.5			

Main Outcomes N= 526

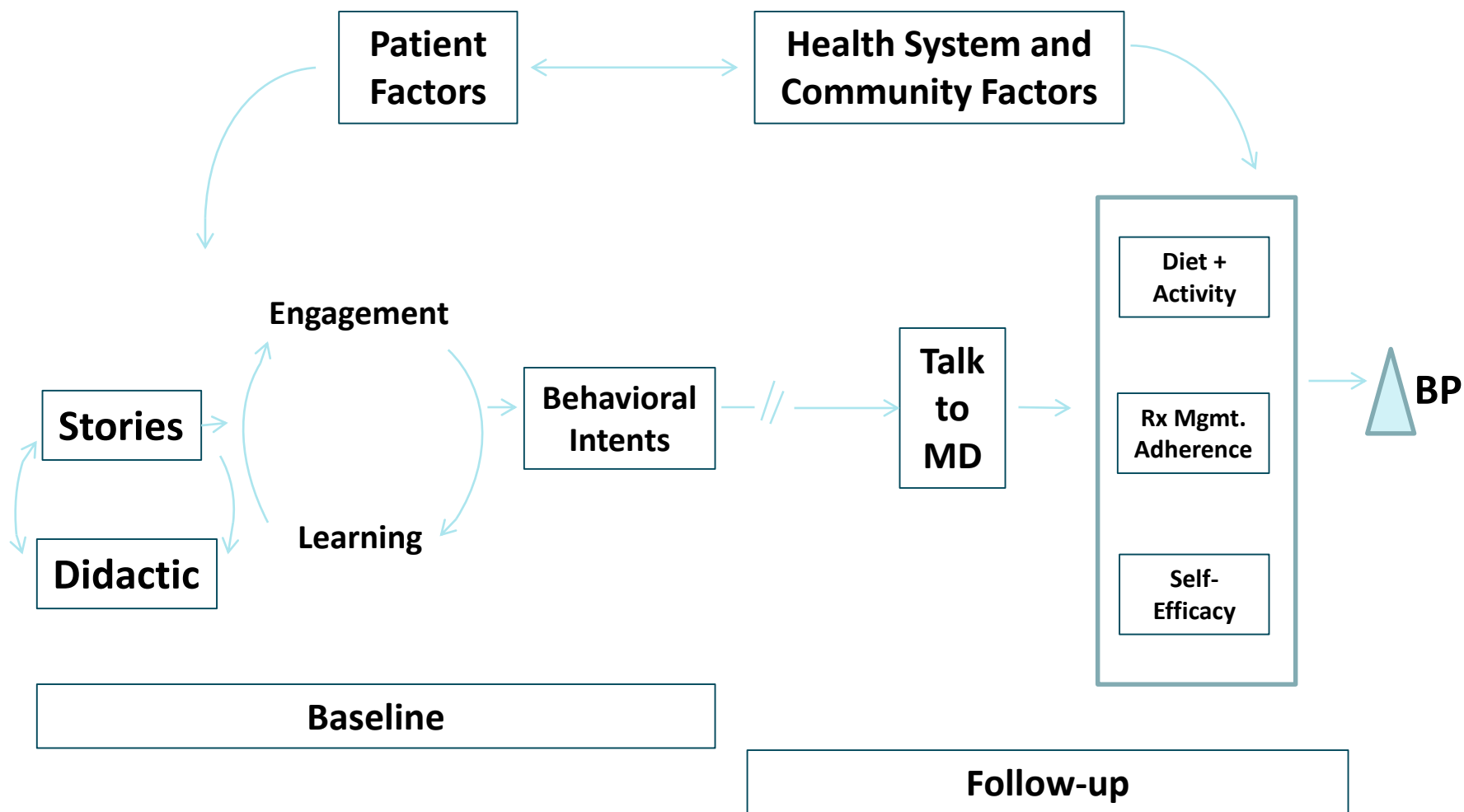
All sites	BASELINE BLOOD PRESSURE		FOLLOW-UP BLOOD PRESSURE	
ALL	SBP/DBP mean	(SD)	SBP/DBP mean	(SD)
Control	139.0/81.0	(18.1, 13.1)	141.2/81.9	(17.8, 13.1)
Intervention	137.8/80.2	(17.4/ 11.9)	137.9/80.1	(18.4, 13.0)
I/C Difference	-1.2/-0.8		-3.3/-1.8	
	ttest p =0.4/0.5		ttest p =	0.04/ 0.11

Conclusions

- Patients who viewed patient stories reported:
 - Significantly higher emotional engagement
- The stories DVD resulted in a difference in blood pressure at follow-up, comparing intervention versus control

Discussion

- Changing behaviors to improve HTN control can be difficult, and didactic education isn't often effective
- Videotaped patient stories can be an effective intervention to improve on patients' intentions to change behavior
 - Effect may be through emotional engagement
- DVDs of patients' stories may tap into effect of peer interventions, albeit at lower intensity and cost
- Behavioral intentions associated with clinical outcomes in prior research
 - Recent preliminary analyses of the STORIES intervention on longer term outcomes are promising



Main Outcomes N= 526

All sites	BASELINE BLOOD PRESSURE		FOLLOW-UP BLOOD PRESSURE		Change F/u (baseline-followup)
ALL	SBP/DBP mean	(SD)	SBP/DBP mean	(SD)	Mean (sd)
Control	139.0/ 81.0	(18.1, 13.1)	141.2/ 81.9	(17.8, 13.1)	+2.2 (19.8)/ +0.9 (12.9)
Intervention	137.8/ 80.2	(17.4/ 11.9)	137.9/ 80.1	(18.4/ 13.0)	+0.1 (19.2)/ -0.1 (10.3)
I/C Difference	-1.2/ -0.8		-3.3/ -1.8		-2.1/ -1.0
	ttest p =	0.4/0.5	ttest p =	0.04/ 0.11	0.2/ 0.3