

# A new way to look at the Professional Practice Environment

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# Background & Significance

- Safety and the quality of the care patients receive is dependent upon the quality of the healthcare practice environment where the care is provided (Shen, Chiu, Lee, Hu & Chang, 2010).
  - Doctors and nurses make up the largest groups of individuals within the Healthcare environment.
- Thus, the relationship between these doctors and nurses is a major determinant of the quality of the healthcare practice environment (Krogstad, Hofoss, & Hjortdahl, 2004; Shen, et al. 2010).



# Positive Professional Practice Environment

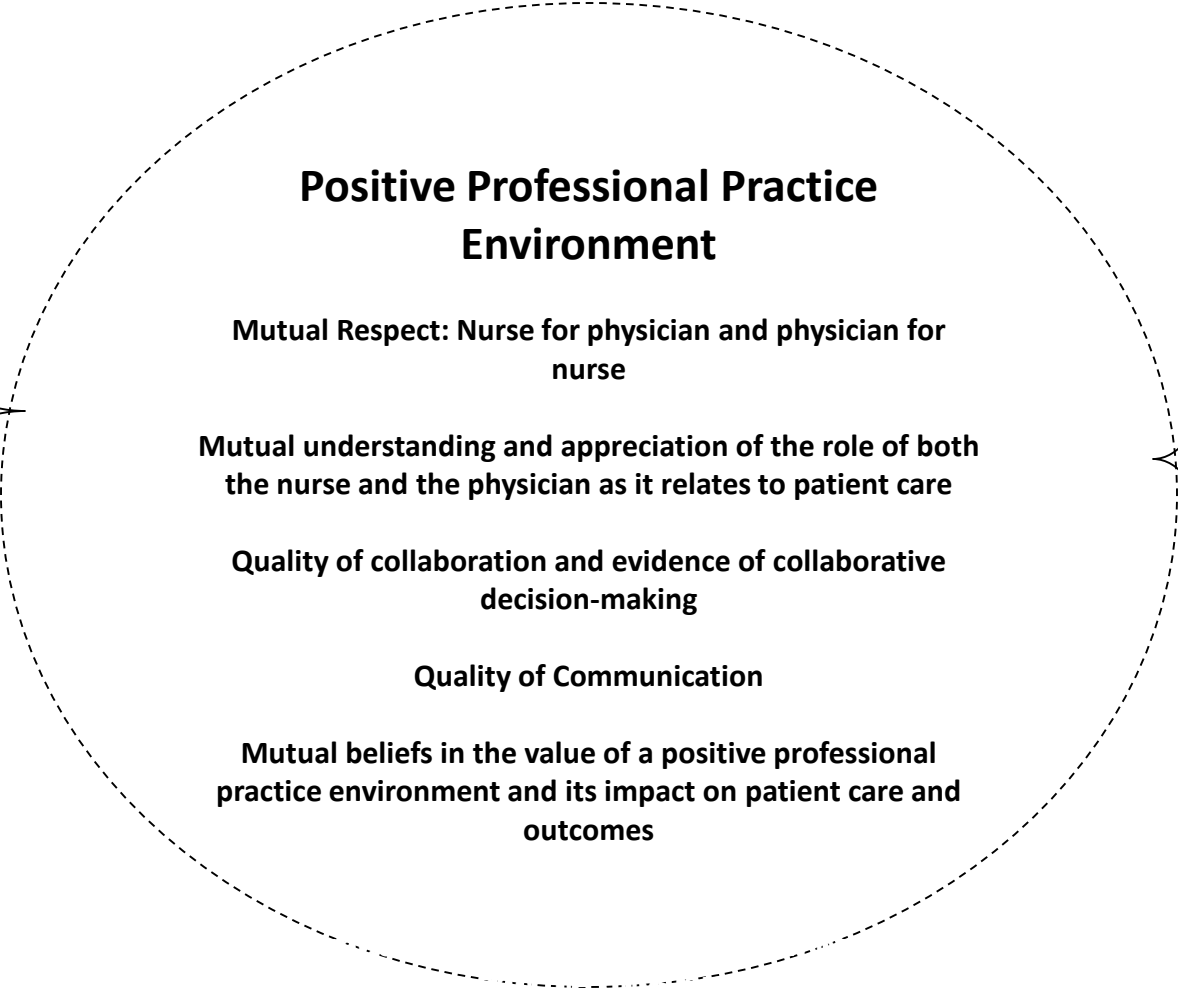
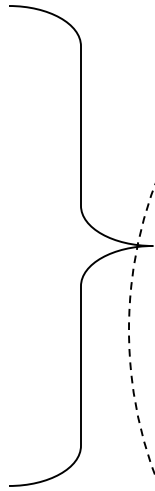
Basic Assumption which is the foundation for our model

- A positive professional practice environment is ***more than and different from*** the absence of disruptive, rude, disrespectful and abusive behavior



# Theoretical Framework

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# Methods

- A two-group comparative study (N = 1372)
  - Compare perceptions of the practice environment between doctors and nurses (PPEAS)
  - Determine how nurses and physicians define respectful behavior (Single-item)
  - Examine the impact of the nurse/physician relationship on nursing care decisions. (Single-item)



# Positive Professional Practice Environment Scale

- Physicians demonstrate respect for nurses at the facility where I work.
- Physicians demonstrate respect for nurses in the area where I work.
- Physicians understand the role of the nurse where I work.
- Nurses demonstrate respect for physicians at the facility where I work.
- Nurses demonstrate respect for physicians in the area where I work.
- Nurses understand the role of the physician.
- Physicians and nurses discuss patient care decisions at the facility where I work.
- Physicians and nurses discuss patient care decisions in the area where I work.
- Rate the quality of physician-nurse communication on a general day.
- Rate the quality of physician-nurse collaboration on a general day.
- To what extent does amount of physician nurse communication impact patient outcomes?
- To what extent does the degree of nurse-physician respect impact patient outcomes.
- To what extent does the level of physician nurse collaboration impact patient outcomes?

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Red- Physician Characteristics  
Blue: Nurse Characteristics  
Black: Organizational Characteristics  
Green: Beliefs



# PPEAS

- Construct validity established through principle component analysis with varimax rotation that confirmed a four-factor solution explaining 72% of the variance
- Internal consistency (Cronbach's alpha) was 0.856 for the nurse group and 0.842 for the physician group, suggesting it was a reliable measure for both groups

VALID



Reliability



# PPEAS



- The overall quality of the professional practice environment is assessed by summing the 13-items.
  - Scores can range from 13 to 130, with higher scores indicating a more positive professional practice environment.
  - An optimal (highest possible score) professional practice environment is indicated by a score of 130 (100%).
- Scores are standardized (0 to 100) by converting the raw score to a percentage to allow for easier comparisons.





# What does respect look like?



**RESPECT**

- The PPEAS assesses perceptions of respect experienced in the professional practice environment,
  - However, it was unclear if nurses and physicians would differ in their beliefs about what respectful behavior looks like.
  - So to determine what behaviors nurses and physicians considered to be respectful behaviors, we asked a single forced-choice question with six possible responses

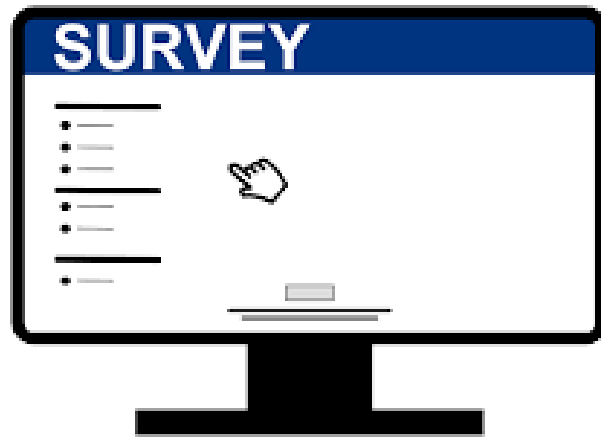


# Does it Matter?

To determine if behaviors and attitudes of individual physicians might impact nursing practice decisions, Nurses were asked if “*a physician’s behavior or attitude affects how they ask a question or if it makes them reluctant to report changes in a patient’s clinical condition*”.



# Procedures



Institutional review board approval was obtained to conduct an anonymous electronic survey.

Consent was implied if respondents submitted their survey.

No identifying information was included on the survey form and even the researchers were not aware of the identity of individual respondents.



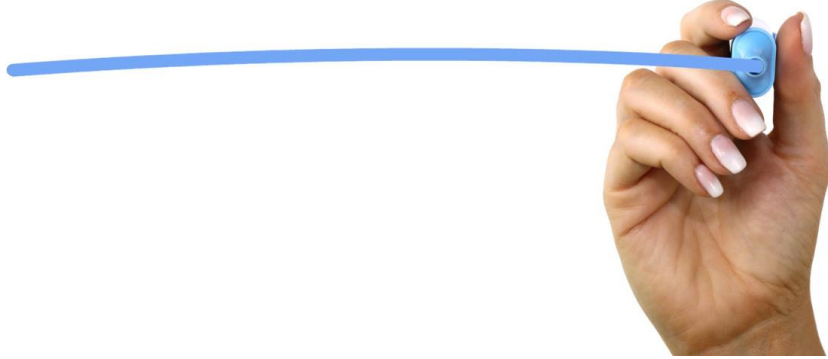
# Procedures

- **Sample:** A convenience sample of nurses (n = 822) and physicians (n = 542)
- **Setting:** Large Midwest Magnet Designated healthcare facility
- **Recruitment:** via email
- **Instrument:** Electronic Survey
- **Data collection** lasted 30 days with weekly reminders



# Procedures

STATISTICS



- Survey responses were automatically entered into a database
- Incomplete surveys were excluded from analysis resulting in an attrition rate of 3% ( $n = 41$ ) but evenly distributed between nurses ( $n = 21$ ) and physicians ( $n = 20$ ).
- Data was exported into a SPSS (V. 20) for analysis.



# Analysis

- Sample described by measures of central tendencies
- Range, mean, and standard deviation were used to describe the professional practice environment (PPEAS)
- Frequencies were used to identify behaviors that most demonstrated respect and to determine the extent to which physician behavior or attitude impacts nursing practice decisions.

STATISTICS



# Demographics

	Nurse (n = 797)			Physician (n = 524)			
	M	SD		M	SD		P
Age	44.24	10.33		43.46	10.70		.156
Years of experience	18.99	10.74		16.42	10.88		<.001
	Nurse (n = 769)			Physician (n = 515)			
	n	%		n	%		
Gender							
	Male	37	5	Male	372	72	
	Female	732	95	Female	143	28	
Roles							
	Staff Nurse	479	62	Staff	411	76	
	Manager	174	23	Resident	84	15	
	CNS	62	8	Fellow	46	9	
	NP	59	7				
Education							
	LPN	34	4				
	Diploma/AD	231	28				
	Bachelors	372	47				
	Masters	157	19				
	Doctorate	18	2				

# Analysis

- Analysis of variance (ANOVA) and chi-square analysis were used to compare nurse and physician groups on major study variables.
- Multivariate analysis of variance (MANOVA) using group (nurse/physician) as the independent variable and the four PPEAS subscales as dependent variables were used to assess observed differences between nurses and physicians.
- Because of the large sample size, a p-value  $<0.01$  was selected to determine statistical significance.





# Findings: PPEAS

	Nurse (n = 822)			Physician (n = 542)					
	M(SD)	Range	Standardized Score	M(SD)	Range	Standardized Score	$\eta^2$	Power	p
Physician Characteristics	35.13(6.75)	7-50	70	37.37(5.45)	17-50	74	.030	1.00	<.001
Nurse Characteristics	21.61(3.74)	7-30	73	22.28(3.86)	10-30	73	.008	.816	NS
Organizational Characteristics	12.88(4.09)	2-20	65	15.59(2.51)	5-20	80	.124	1.00	<.001
Beliefs	25.12(14.81)	3-30	83	24.43(4.74)	3-30	80	.010	.923	.009
Total	94.73(14.81)	30-130	72	99.68(12.74)	55-129	77	.024	1.00	<.001

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# *Nurse Perceptions of Professional Practice Environment*

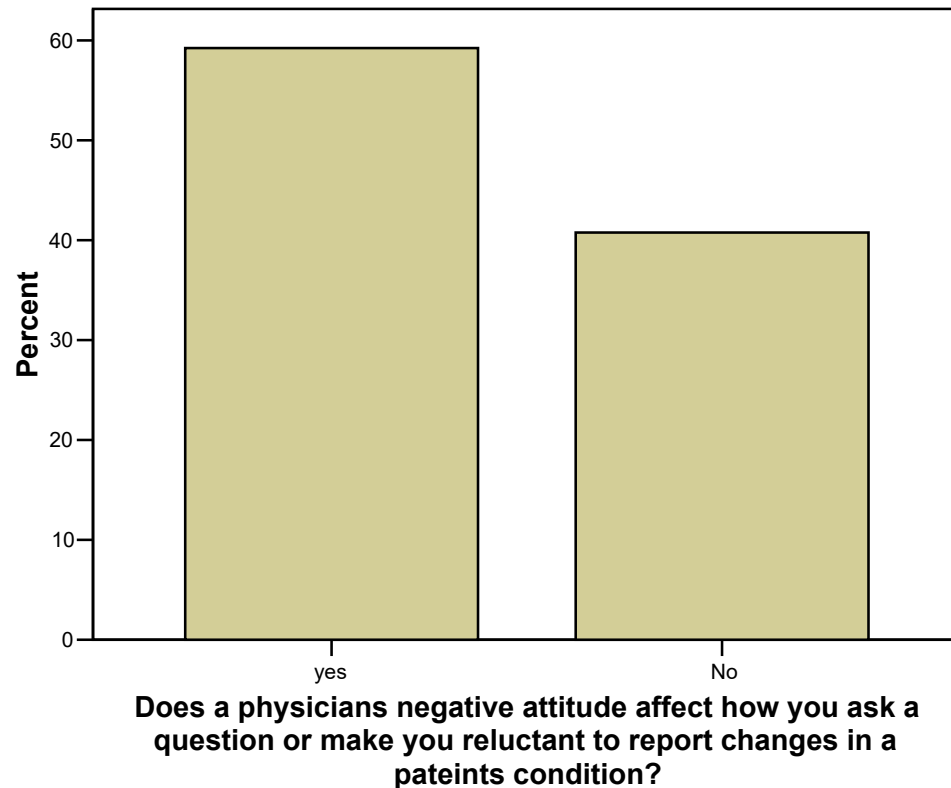
		Roles					
		Staff Nurse N = 479	Manager N = 174	CNS N =62	NP N = 59	Other N =48	p
<b>Physician Characteristics</b>							
	M(SD)	34.91(6.81)	34.76(6.61)	36.28(6.61)	37.80(6.55)	33.84(6.42)	.008
	Range	7-50	19-50	20-50	17-50	20-45	
	Standard Score	70	70	72	76	68	
<b>Nurse Characteristics</b>							
	M(SD)	21.54(3.80)	21.63(3.14)	22.04(3.64)	22.13(3.49)	21.00(3.46)	.492
	Range	7-30	14-30	14-30	15-30	14-28	NS
	Standard Score	73	73	73	73	70	
<b>Organizational Characteristics</b>							
	M(SD)	12.86(4.19)	12.52(4.15)	13.22(3.93)	14.14(3.70)	12.40(3.35)	.091
	Range	2-20	2-20	4-20	4-20	5-20	NS
	Standard Score	65	65	65	70	60	
<b>Beliefs</b>							
	M(SD)	24.79(5.14)	25.68(4.74)	26.11(3.43)	25.64(4.17)	24.40(5.98)	.077
	Range	3-30	3-30	15-30	12-30	6-30	NS
	Standard Score	83	87	87	87	80	
<b>Total</b>							
	M(SD)	94.10(15.18)	94.60(14.17)	97.65(13.78)	99.70(14.54)	91.65(13.53)	.017
	Range	30-126	46-130	65-127	66-128	62-115	NS
	Standard Score	73	73	75	77	71	

# Behaviors that Best Demonstrate Respect

	Nurse N = 814		Physician N = 539		Total N = 1353			
Behavior	N	%	N	%	N	%		p
								<b>&lt;.001</b>
Treats me with civility, courtesy and dignity	439	54	293	54	732	54		Most Common No Difference
Works to solves problems without hostility or verbal abuse	134	16	139	26	273	20		Physicians ranked higher
Listens when I am speaking	136	17	53	10	189	14		Nurses ranked higher
Never intentionally ridicules embarrasses or harasses	32	4	31	6	63	5		
Asks me questions	38	5	15	3	53	4		
Answers my questions	35	4	8	1	43	3		

# Impact on Outcomes

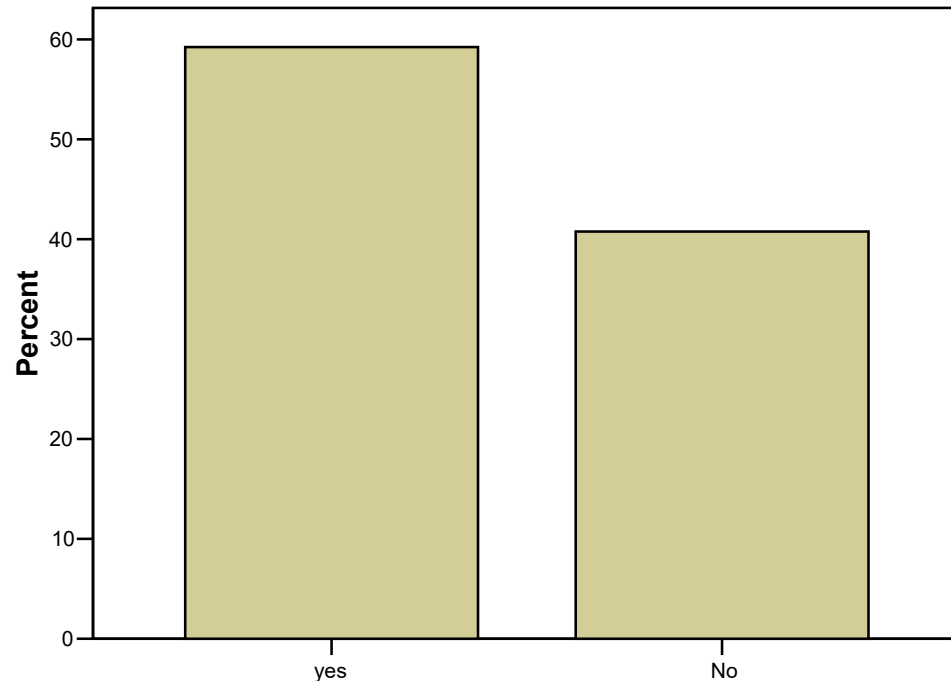
Does a physicians negative attitude affect how you ask a question or make you reluctant to report changes in a pateints condition?



- Scores on the PPEAS did not differ between nurses who answered yes and those who answered no
- Significant difference related to age, with nurses who responded yes being younger than those who responded no ( $F(1,783) = 11.83, p = .001$ ).
- A similar finding related to years experience was also noted, with nurses who responded no having more nursing experience than those who responded yes.
- In addition, clinical nurse specialists (86%) were more likely to respond no than nurse practitioners (59%), nurse managers (49%), or staff nurses (36%).

# Impact on Outcomes

**Does a physicians negative attitude affect how you ask a question or make you reluctant to report changes in a pateints condition?**

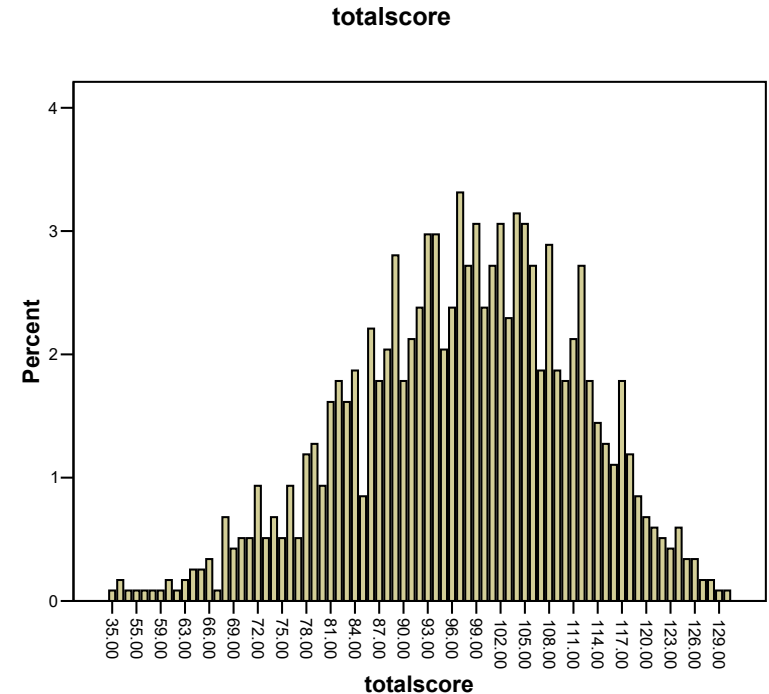


**Does a physicians negative attitude affect how you ask a question or make you reluctant to report changes in a pateints condition?**

- Our finding that younger nurses, nurses with less experience and staff nurses are most intimidated by physician behaviors and attitudes suggests a need to better prepare nurses for their role in the real world

# Conclusions

- Nurses and physicians perceive their work environment differently
  - Neither group perceives their practice environment as optimal, suggesting significant room for improvement.
- The professional practice environment assessment data was normally distributed for physicians and nurses,
  - Suggesting that while many perceive their environment positively a similar number perceived their environment as less positive



# Implications



- There is a need to assess the positive aspects of the environment
  - Initiatives with the aim of improving the practice environment by eliminating rude and disrespectful behavior are important but insufficient
  - Simply assessing the environment by the frequency of poor behavior is of little help when designing programs to improve and enhance the positive characteristics of the professional practice environment





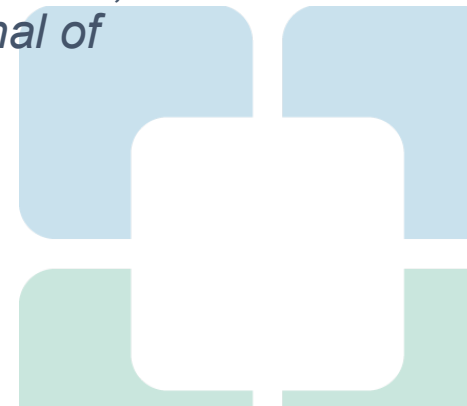
# References

- **Siedlecki, S. L., & Hixson, E. D. (2011).** Development and psychometric exploration of the professional practice environment assessment scale. *Journal of Nursing Scholarship*, 43(4), 421-425.
- **Siedlecki, S. L., & Hixson, E. D. (2015).** The relationship between nurses and physicians matter. *Online Journal of Issues in Nursing (OJIN)*, 20(3), doi: 10.3912/ojim.Vol20No03PPT03



# Similar Findings

- Jones, Robert N. (MD FACS- Vice Chair Cardiovascular Service Line, MidMichigan Medical Center-Midland (MI)(2018) The Doctor Nurse Relationship and its Key Role in Relationship Based Care (Conference Presentation)
- Bursiek AA; Hopkins MR; Breitkopf DM; Grubbs PL; Joswiak ME; Klipfel JM; Johnson KM- [Use of High-Fidelity Simulation to Enhance Interdisciplinary Collaboration and Reduce Patient Falls.](#)
  - Used The PPEAS to measure impact of Team training activity after 6- months
- Collette, A. E., Wann, K., Nevin, M. L., Rique, K., Tarrant, G., Hickey, L. A., ... & Thomason, T. (2017). An exploration of nurse-physician perceptions of collaborative behavior. *Journal of Interprofessional Care*, 31(4), 470-478.
  - Physicians perceive higher collaboration than nurses
  - Nurse PPEAS scores lowest in the OR and highest in the ED



# Contact Information

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