

RESIDENT EDUCATION PROGRAM IMPROVES PHYSICIAN-FAMILY COMMUNICATION

Jayarajan SN, Taghavi S, O'Shaughnessy G,
Reynolds A, Milner R, Gaughan J, Nathan H,
Goldberg AJ.

Temple University Hospital
Department of Surgery



Gift of Life Donor Program
Philadelphia, PA



Background

- Last year, nearly 108,000 people waited for an organ.
 - Over 8,500 died while waiting for donation.
- Since 2006, the number of deceased donors has not increased.¹
- National Donor Conversion Rates
 - Goal 75% (set in 2003)
 - Baseline 51.5% → 71.1% (current)

Background

- Failure to obtain consent for donation
 - An important reason that patients are not receiving lifesaving transplants.
- Nearly 30% of potential donations are lost due to family refusal to donate.^{1,2}
- This is related to physician reluctance or ineffectiveness when discussing brain death and organ transplantation with families.

Purpose

- **Primary:**
To evaluate the impact that simulated resident training on explaining brain death had on resident knowledge and comfort.
- **Secondary:**
To assess the effect the program had on the organ donation conversion rates.

Goals of the Training Session

Provide tools and resources to effectively communicate with grieving families in a concise and clear manner that:

- Conveys compassion
- Demonstrates expertise
- Promotes family understanding of grave prognosis and/or brain death
- Guides the family in their decision making

Training Components

- Pre- and post-survey evaluate residents' knowledge, skill, confidence and comfort with explaining brain death.
- Didactics: clinical triggers for referral, defining/explaining brain death, optimal organ donation process including 'decoupling' the conversations on brain death and organ transplantation.
- Simulation explaining brain death to a family member
- Standardized 12-point checklist to evaluate the residents' performance with immediate feedback

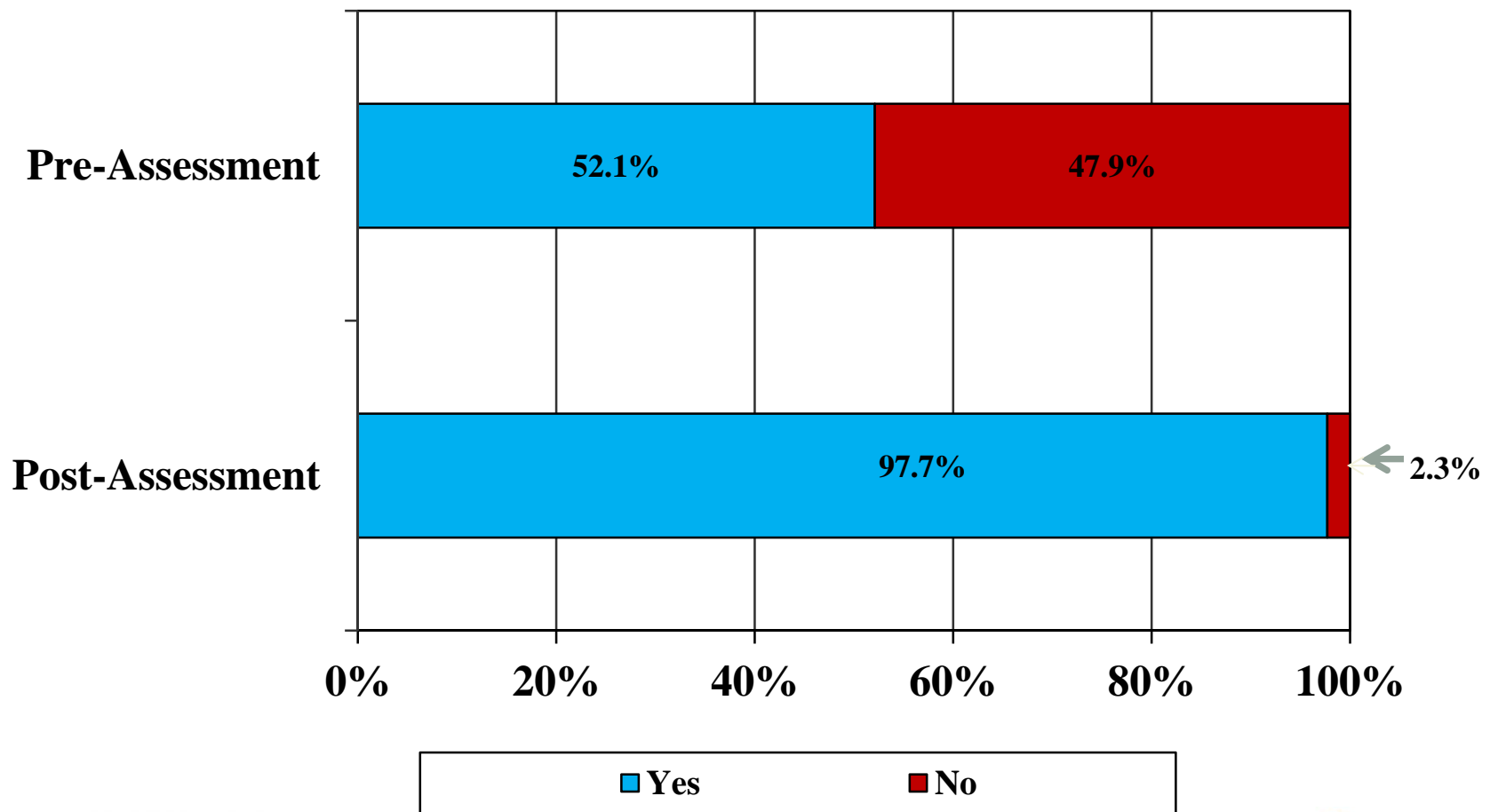
Results

- 140 surgical residents from 5 level I trauma centers
- 53.7% were Post-Graduate Year 1.
- 75% had cared for a patient who was ultimately declared brain dead.
- 47.1% had given grave news prior to training.

Results

- 88.7% of participants reported first learning about brain death in medical school.
- Only 40 (28.6%) had formal training on how to explain brain death to families.
- The most common fear was feeling uncomfortable while explaining brain death (49.3%).
- Other key factors that were cited included fear of the family's reaction (33.6%) and fear of their own deaths (2.1%).

Is brain death synonymous with death?



The discussion about organ donation should occur after brain death pronouncement and after a family understands brain death as death.

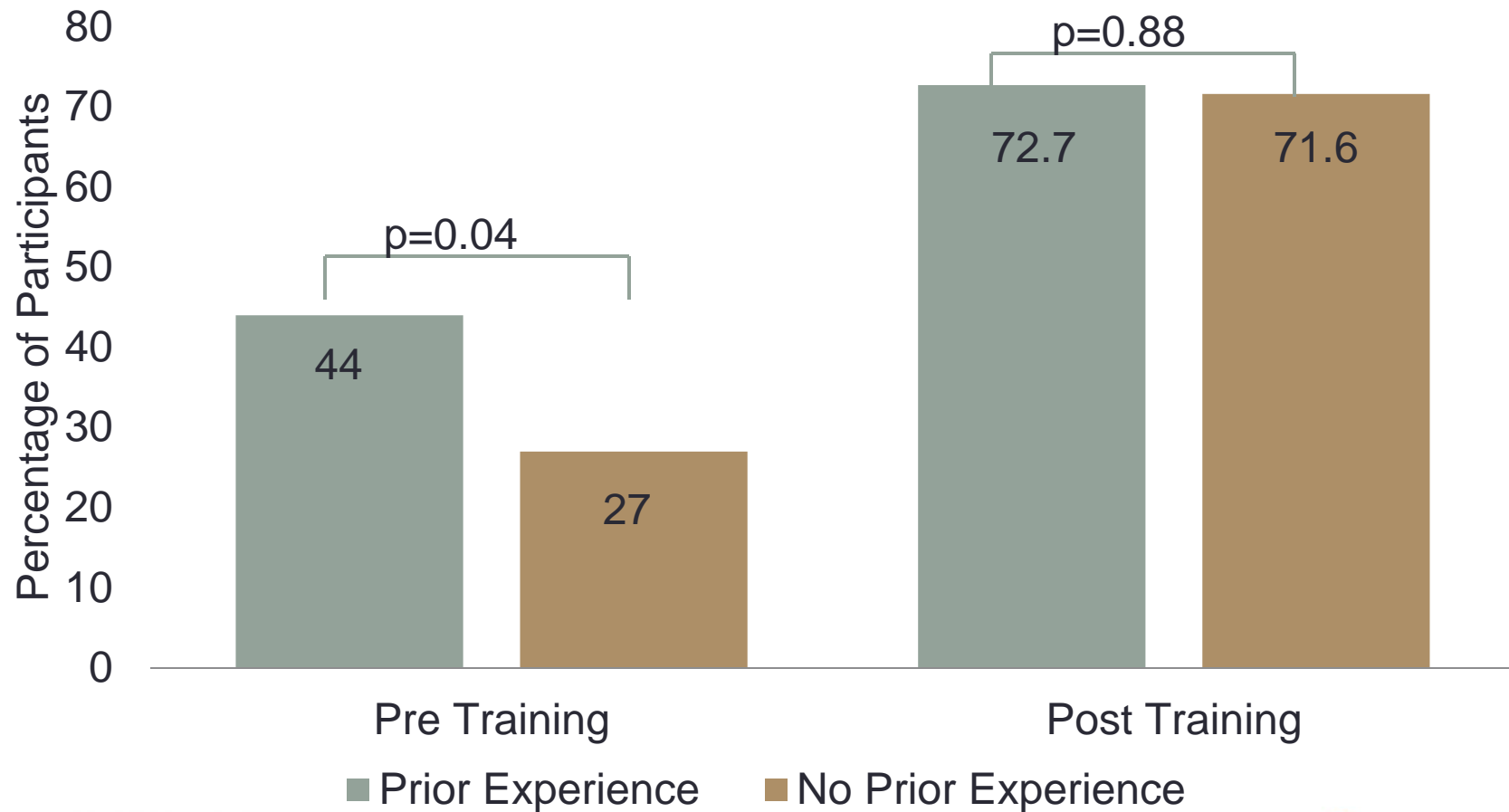
	Strongly Agree (5)	Agree (4)	Neither Agree Nor Disagree (3)	Disagree (2)	Strongly Disagree (1)	Mean Rating
Pre-Assessment (n=140)	11.4% (n=16)	45.7% (n=64)	20.0% (n=28)	17.9% (n=25)	5.0% (n=7)	3.41
Post-Assessment (n=128)	40.6% (n=52)	56.3% (n=72)	2.3% (n=3)	0.8% (n=1)	0% (n=0)	4.37

I feel comfortable in discussing brain death with families.

	Strongly Agree (5)	Agree (4)	Neither Agree Nor Disagree (3)	Disagree (2)	Strongly Disagree (1)	Mean Rating
Pre-Assessment (n=140)	6.4% (n=9)	28.6% (n=40)	22.1% (n=31)	36.4% (n=51)	6.4% (n=9)	2.92
Post-Assessment (n=128)	16.4% (n=21)	64.1% (n=82)	14.8% (n=31)	3.9% (n=5)	0.8% (n=1)	3.91

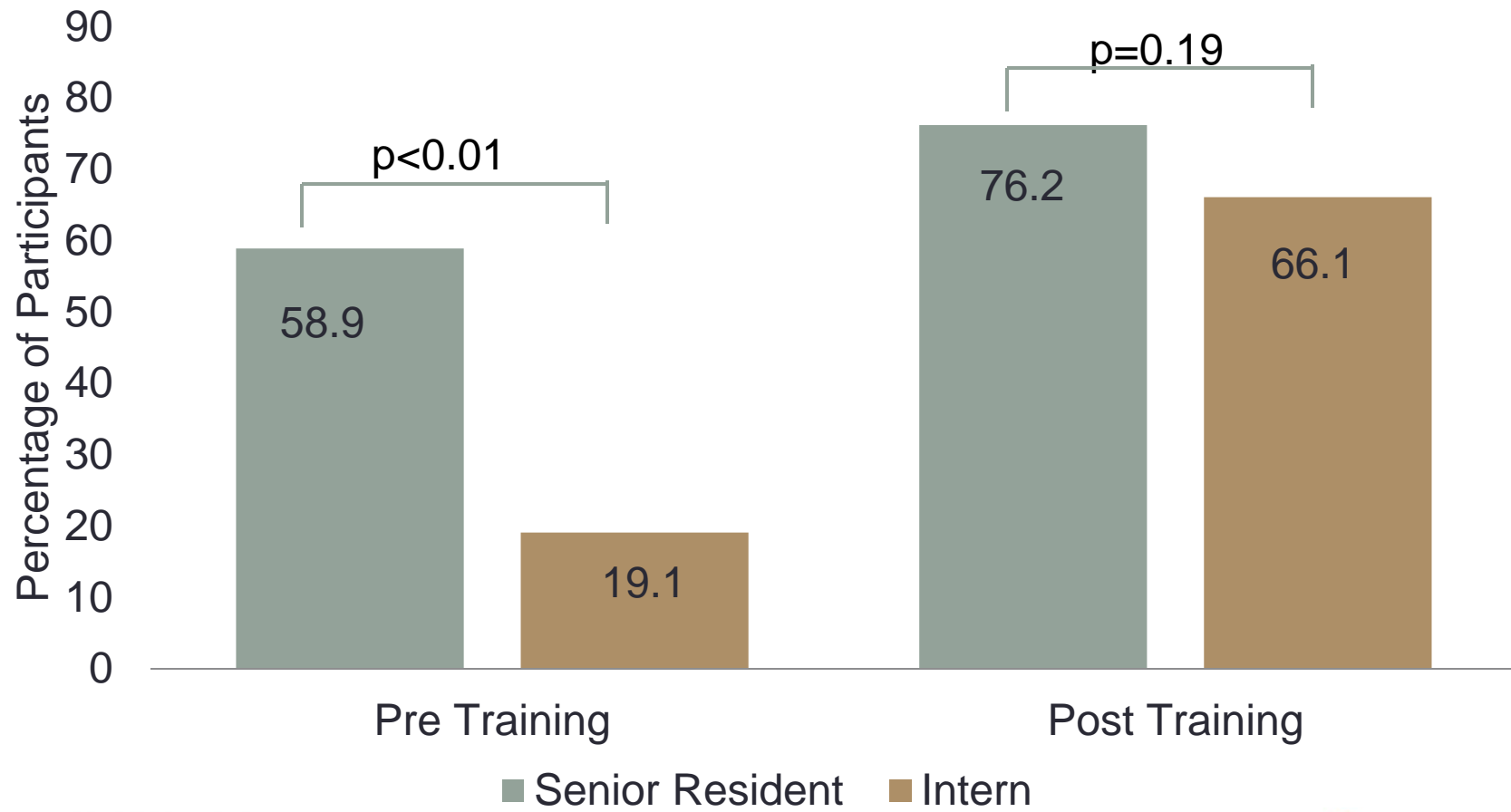
Results – Prior Experience subset

Effect of Training on Comfort



Results – Level of Training subset

Effect of Training on Comfort



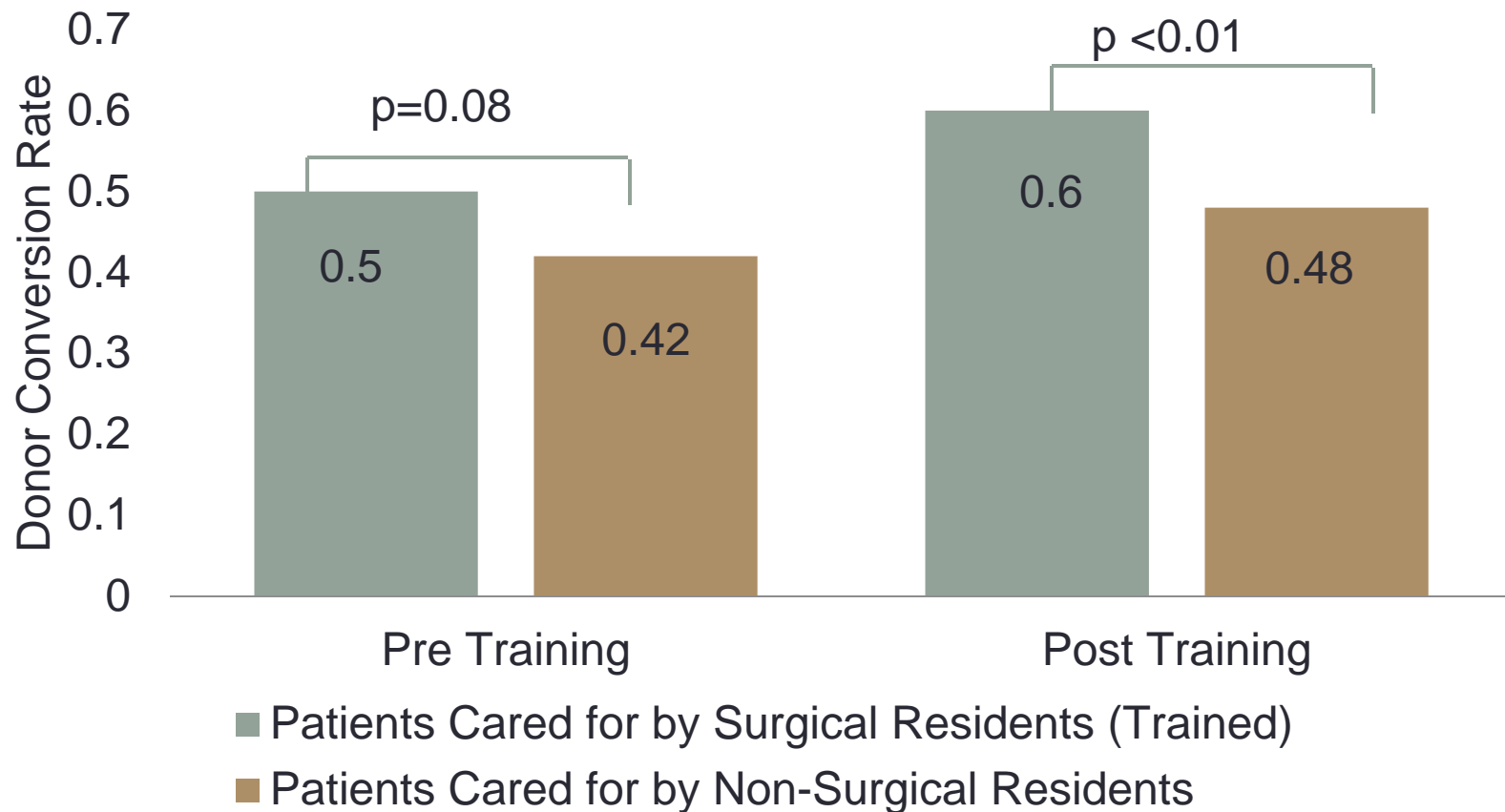
Results – Durability

- Median 2 years after training
- 26 previously trained residents
- Average of 3 instances to discuss end of life issues
- No difference compared to post training survey results

Question		Post survey	P value
Is brain death synonymous with death?	96.7%	97.7%	0.76
Are you comfortable when discussing brain death?	93.3%	86.7%	0.32

Results – Donor Conversion Rate

Change in Donor Conversion Rate after Training



Conclusions

- Majority of residents have not had formal training in discussing brain death.
- Training can improve the knowledge and comfort that residents have while discussing brain death and organ transplantation, including the idea of ‘decoupling’.
- Training effects were durable at 2 years.
- There were noted improvements in conversion rates among trauma patients (cared for by trained residents) vs. non trauma patients.

Limitations

- Confined to metro Philadelphia area
- Only includes surgery residents
- Cannot control for all resident experiences. These experiences and informal training may have contributed to better performance
- Causal relationship between resident training and increase in donation rates in our SICU

Acknowledgements

- Temple University Hospital
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- Albert Einstein Medical Center
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- Christiana Hospital

Questions?