



# Perceived Resident Competency in ACGME-Required NICU Procedures

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## BACKGROUND

- ACGME-required NICU procedures that residents are meant to be competent in prior to graduation include bag mask ventilation (BMV), umbilical venous catheter (UVC) placement, and intubation
- However, there is reported variation in residents' perceived competency in these procedures nationwide

## METHODS

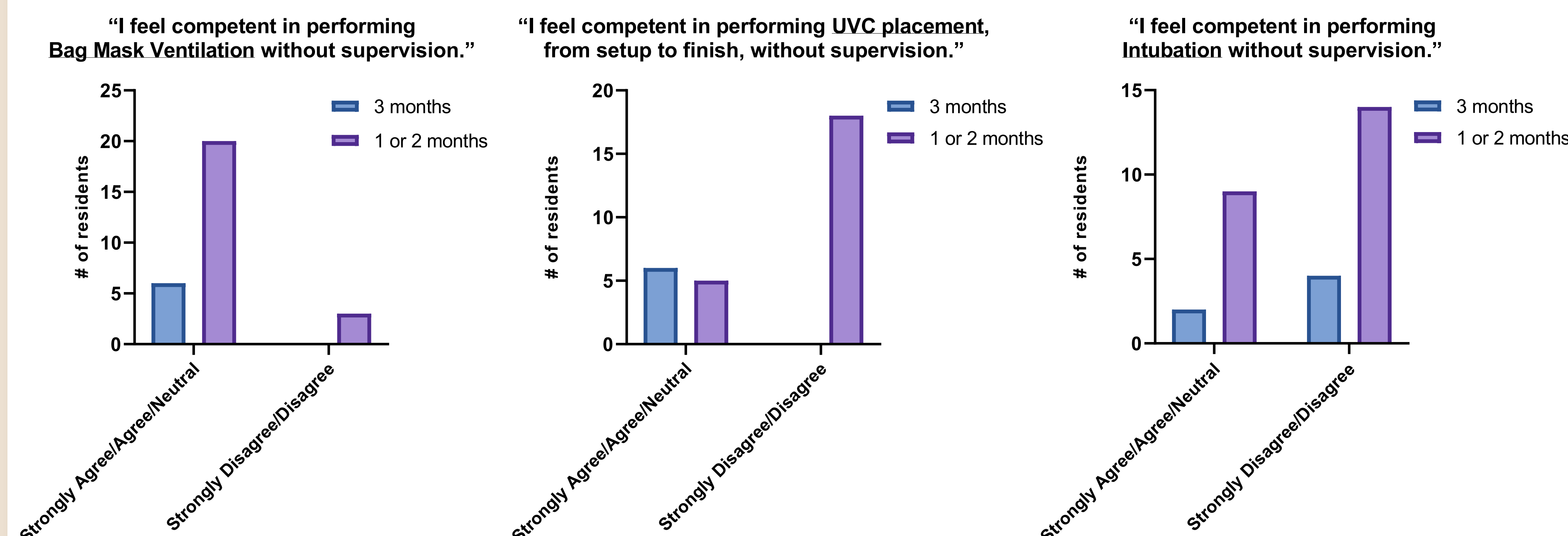
- **Objective:** To evaluate and identify methods for improving pediatric residents' perceived competency in ACGME-required NICU procedures prior to graduation
- **Design:** 5-point Likert scale-based survey administered via email to pediatric residents at UW Madison in 2020 to assess perceived competency in BMV, UVC placement, and intubation; demographics collected included year in residency and number of NICU rotations completed
- **Methods:** Statistical analysis completed using Chi-square (Fisher's exact test) testing to assess statistical significance of differences in perceived competency between residents who completed 3 months of NICU rotations versus 1 or 2 months with the 3 selected procedures

Pediatric residents indicated **low perceived competency** in UVC placement and intubation, while the majority felt competent with bag mask ventilation

## RESULTS

- 46 pediatric residents surveyed with a 64% response rate (n=29)
- 45% (n=13) of respondents completed 1 month of a NICU rotation; 34% (n=10) completed 2 months; 21% (n=6) completed 3 months
- **BMV:** 90% (n=26) of respondents indicated **perceived competency with no differences** in competency perception between residents with 1, 2, or 3 months of NICU experience (p>0.999)
- **UVC Placement:** 62% (n=18) of respondents disagreed with feeling competent, but **residents with 3 months of NICU experience indicated an increase in perceived competence** compared to those with 1 or 2 months (p=0.001)
- **Intubation:** 62% (n=18) of respondents **disagreed with feeling competent with no differences** in competency perception between residents with 1, 2, or 3 months of NICU experience (p>0.999)

## GRAPHICS



## CONCLUSIONS

- There is ongoing self-perceived resident discomfort with ACGME-required procedures in the NICU, despite the number of completed NICU rotations
- Further interventions are necessary to improve resident self-perceived comfort and competency