

INTRODUCTION

- The electrocardiogram (ECG) has become one of the most useful and widely used diagnostic tools in modern medicine (Kashou et al., 2020).
- Studies have shown that lead placement is often performed inaccurately (Giannetta et al., 2020).
- Inaccurate ECG lead placement in the perioperative setting has potential to result in incorrect, missed, or delayed patient diagnoses (Walsh, 2018).
- The purpose of this DNP project was to assess the perceived efficacy of a standardized educational aid, a tool designed to streamline ECG lead placement and increase consistency of lead placement among the participants involved.
- The project was performed amongst a nonrandomized, convenience sample of CVICU RNs who care for patients during the perioperative period.

METHODS

- The methodology used for executing this project was the plan-do-study-act cycle (PDSA) (IHI; 2022).
- For the intervention phase, the RNs were allotted a two-week time frame to utilize an ECG tool when applying ECG leads.
- An educational handout and video addressing 6-lead ECG lead placement as well as alternative placement required for varying surgical procedures and positioning was provided to 42 RNs. These RNs were surveyed via their employee email.
- RNs were surveyed before and after the intervention via Qualtrics questionnaires
- Data was downloaded to Excel for analysis and creation of visual depictions.

RESULTS

Figure 1
Confidence Levels of Participants (Pre n = 6; Post n = 4)

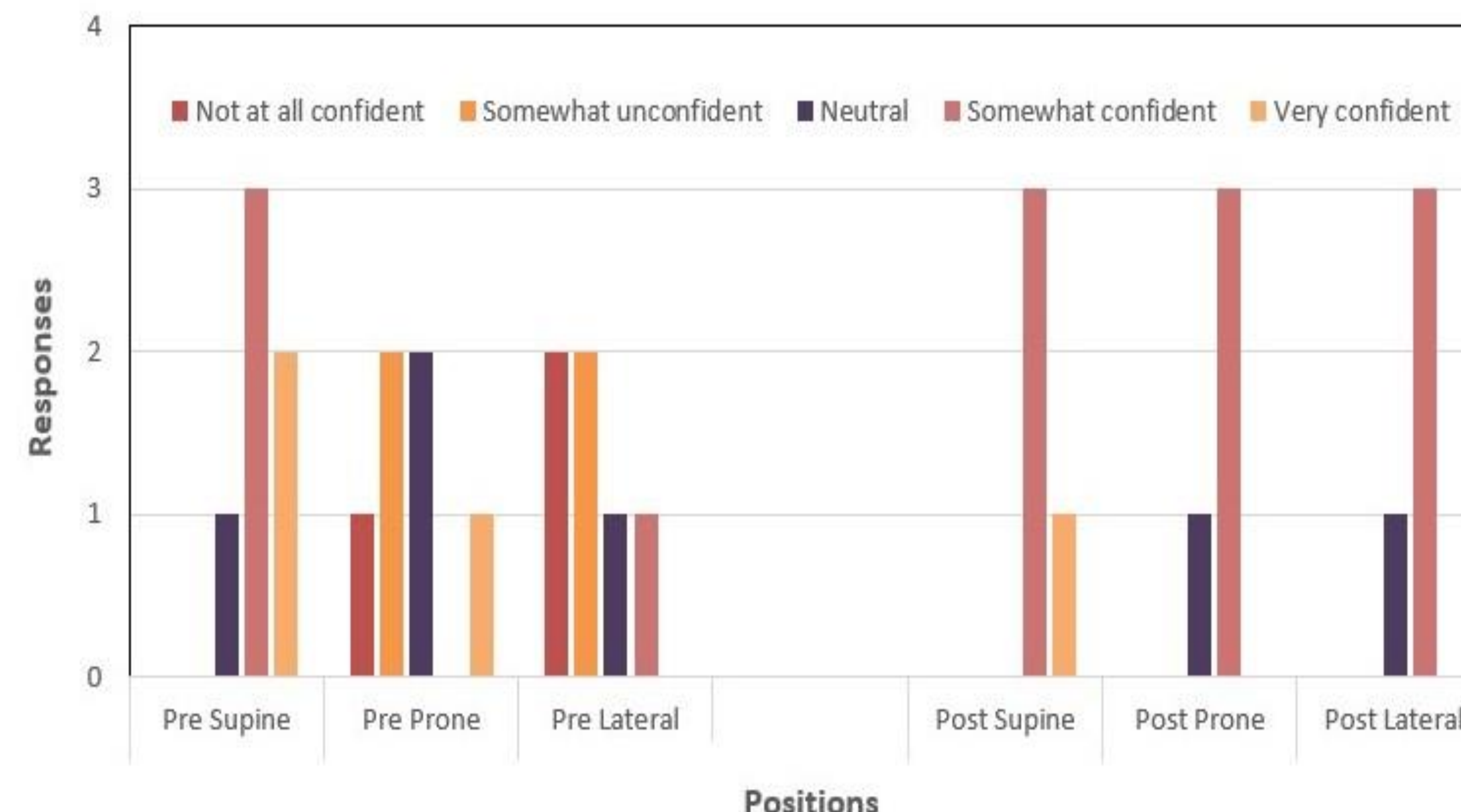
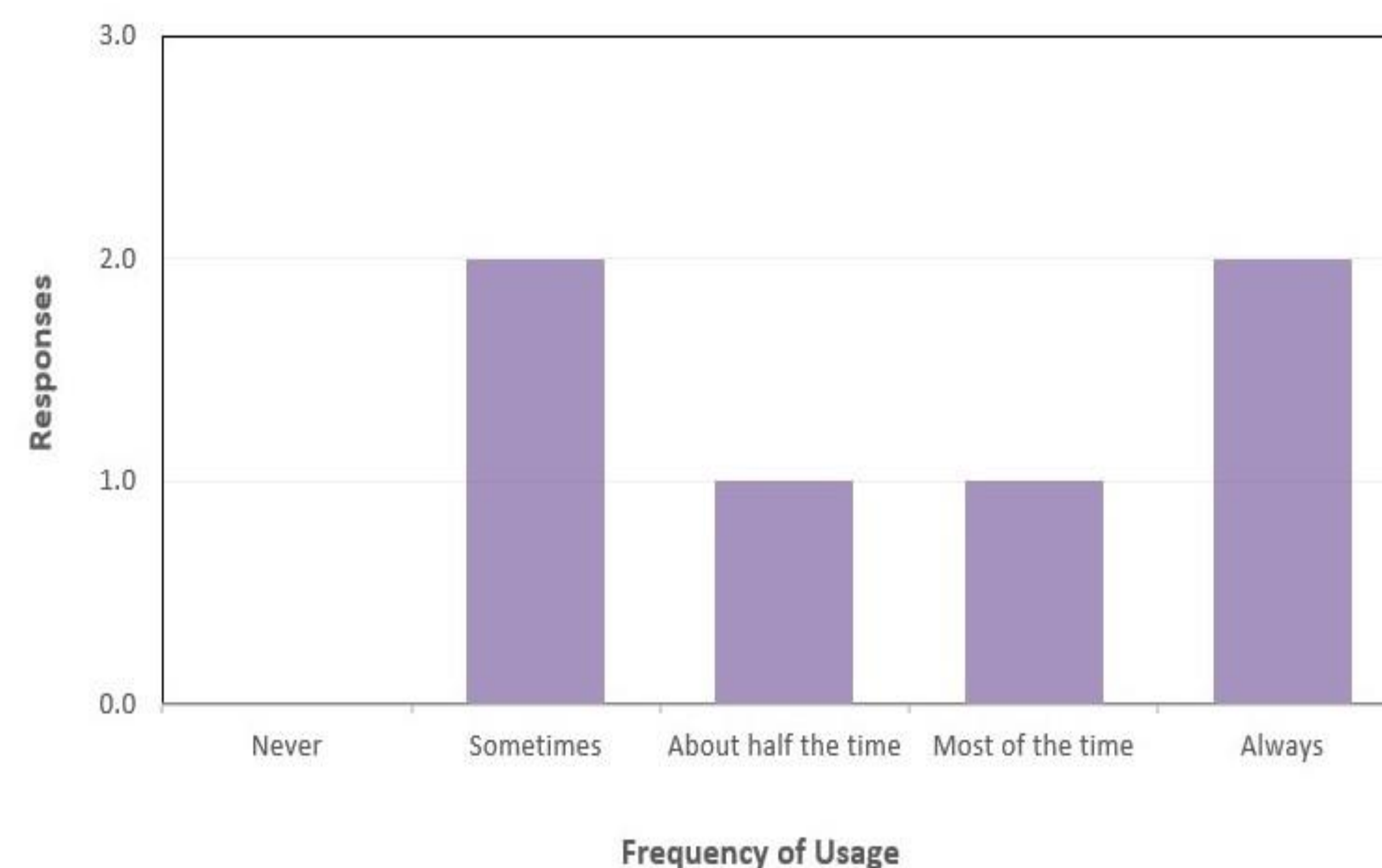


Figure 2
Frequency of Standardized Method Usage (Pre n = 6)



DISCUSSION

- Six RNs participated in the pre-intervention survey.
- Four RNs participated in the post-intervention survey.
- A majority of the pre-intervention responses pertaining to the confidence level of lead placement in alternative positions were somewhat confident and very confident for the supine position, but the prone and lateral position responses did not receive such high levels of confidence (Figure 1).
- After utilizing the ECG tool, the participant responses showed a generalized increase in confidence levels amongst all positions.
- The pre-intervention survey indicated that majority of the participants did not routinely use a standardized method for ECG lead placement (Figure 2).
- There were variances between the responses to the question pertaining to formal training during the onboarding process (Three RNs responded "yes", two responded "no", and one responded "maybe.") It is possible that there may be some inconsistencies with ECG lead training as part of the onboarding program.
- On the post-intervention survey, most of the participants reported utilization of the tool required less than 5 minutes and agreed usage of the tool improved the quality of the care delivered to the patients.

CONCLUSIONS

- Limitations: Out of 42 RNs surveyed on this unit, only six responded to the pre-intervention survey and four responded to the post-intervention survey. These numbers make up less than 15 percent of the nursing population on this unit, which provides a poor representation of the common practices used by the CVICU RNs.
- Future Ideas: Range of time that the project was implemented could be extended to allow for more face-to-face contact. Usage of the tool by the RNs could be increased with appropriate incentives and encouragement.
- Expanding: The unit itself could potentially afford to produce the money needed to implement the intervention and if there were positive results, then the institution could contribute to the cost and branch out, extending the project out to other units.

REFERENCES

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