

Assessing the Implementation of Buzzy® on Pediatric Units to Decrease Procedural Pain

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Problem Statement

- Needle related procedures (NRP) can be traumatic and stressful, and with each negative encounter, children will experience more pain in subsequent procedures
- Pediatric pain is often inadequately assessed
- Up to 30% of needle phobias are considered due to traumatic experiences, particularly during pediatric procedures when patients perceived that no comfort measures were attempted.
- There is currently **no procedural preparation or child life program in place** at QI site, with **0% of children receiving pain distraction interventions.**

Purpose & Goals

Purpose Statement: This QI project implemented the use of Buzzy® during venipuncture and IV placements, in children from 3-17 years.

Process Goals:

- 100% of pediatric patients will have pain appropriately assessed throughout NRP care episode.
- Offer Buzzy® in 100% of NRPs in children 3-17 years.

Long Term Goals:

After successful implementation, offering Buzzy® will be sustained after project timeline is complete.

Methods

Setting: A Mid-Atlantic community hospital in care received within Pediatric inpatient and emergency care units over a 15-week period in the Fall 2023.

Population: Pediatric patients, 3-17 years old, who required NRP during their acute care episode, estimated to affect the care of 1,400 pediatric patients

Intervention: Pediatric Beside Team (PBT) offer Buzzy® to children/families as pain distraction during NRPs

Implementation Strategies:

- Unit funding provided 4 Buzzy® devices
- Weekly communications sharing of positive patient experiences and updates.
- Visual Cues throughout unit including supply rooms/carts, computer workstations, and in patient rooms

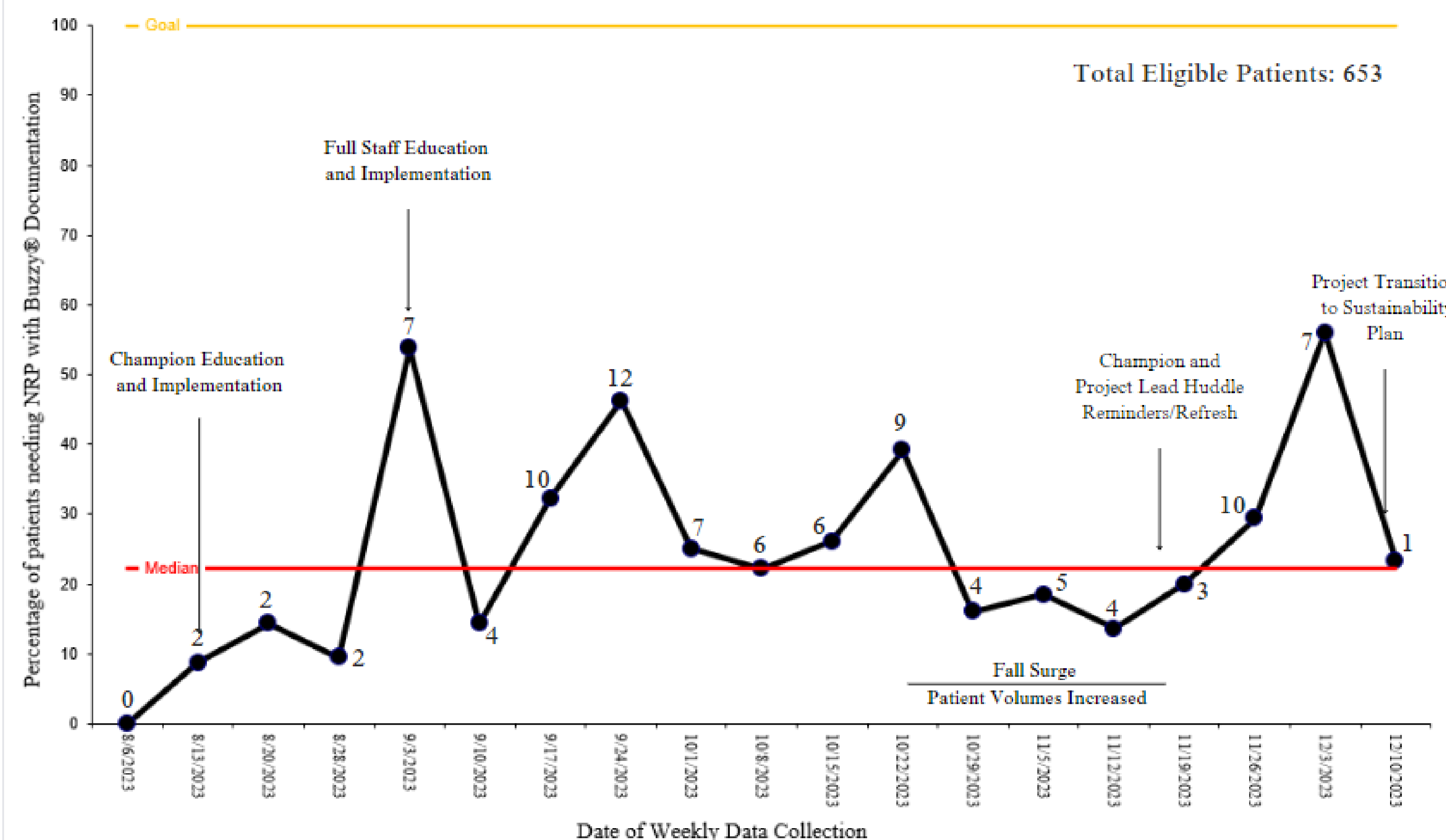
Measures:

- Education was completed including Post-Education Surveys entered by PBT into REDCap via QR code
- After each patient care NRP, the PBT securely documented directly into REDCap via QR code

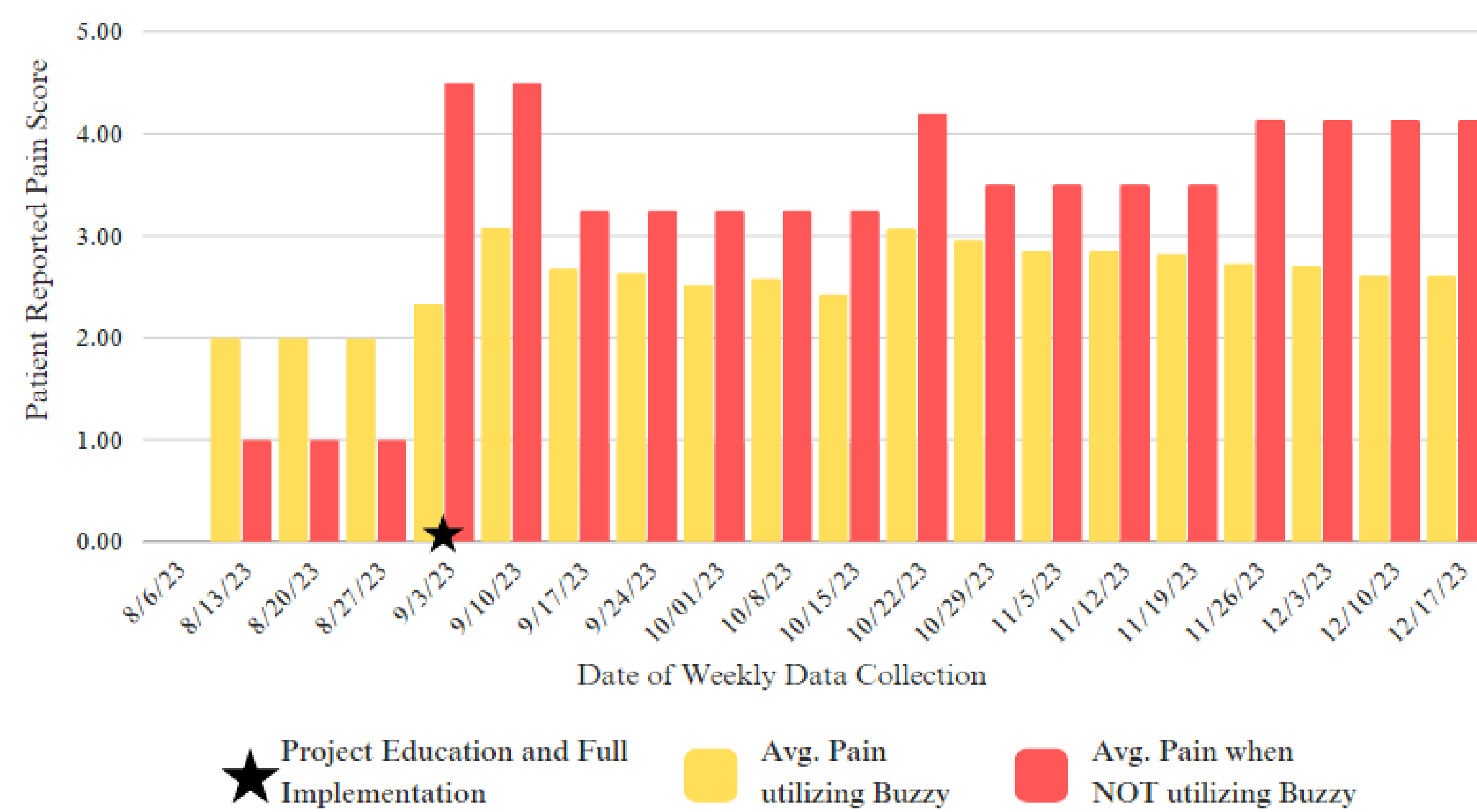


Results

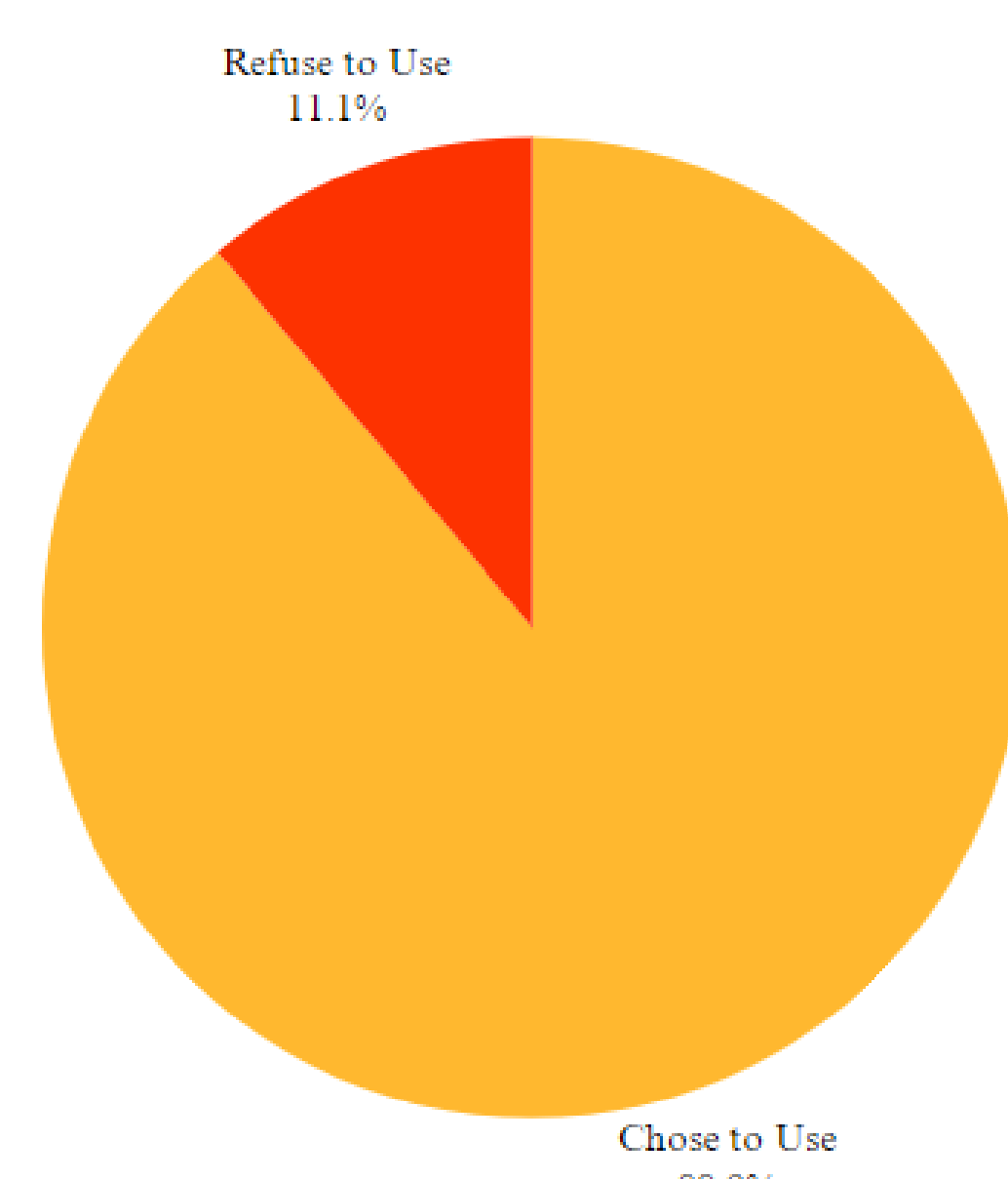
Buzzy® Documentation Adherence



Average Reported Pain Scores



Did patients use Buzzy when offered?



Discussion

- **93.3% of the Pediatric Bedside Team (PBT) completed Buzzy® education.**
- **Average of 16.2% of eligible patient's being offered Buzzy®**
 - Highest directly after education and staff huddles
 - Highest implementation of 56% of patients.
- **88.9% of patients and families chose to use Buzzy® during NRPs.**
- Patients who used Buzzy® reported an average pain score of **2.6**
- Patients who **did not use Buzzy®** reported an average pain score of **4.2**.
- **Facilitators:**
 - Positive experiences were shared
 - Patients/families request for Buzzy® in subsequent procedures.
- **Barriers/Limitations:** Per patient and staff reports, Buzzy® was used at higher percentages, but **datal collection was limited** by
 - High census and acuity surges
 - Non-PBT staff completing pediatric NRPs in Pediatric ED
 - Triage and Pediatric ED Coverage
 - Documentation required outside of EMR

The results of QI project align with literature findings, which support the implementation of Buzzy® to decreased pediatric NRP pain.

Conclusion

The results of this QI project suggest that by implementing education and procedural use of Buzzy® during venipuncture and IV placements, in children from 3-17 years, the PBT decreased pediatric pain.

- Site served as an **opportune setting for Buzzy® implementation.**
- **High adherence initially** but sustained lack of data entry limited implementation analysis. Further implementation is needed
- **Sustainability: Buzzy® is a cost-effective device**, which allows for transition into **sustainability plan without financial investment.**
- **Implications for Future Practice:** Developing standard use of Buzzy® into additional procedures within this department and expanding use into other departments.

Acknowledgements

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References

For a complete list of references, please scan the QR code:

