

Objective

PDSA created the Poke-R Club to empower kids with Immune Thrombocytopenia by alleviating the fear and anxiety associated with needles while giving them a program and community to call their own. This study aimed to determine the efficacy and impact of the Poke-R Club on pediatric patients with ITP.



(Left): Poke-R Club Member getting her blood drawn while using Buzzy

(Right): Poke-R Club Program kit and contents

Methods

Surveys pertaining to demographic and clinical information, and program efficacy were distributed to 46 children enrolled in the Poke-R Club. As of June 2016, 46 children (50% female) ages 2-15 earned 910 poker chips (equivalent to 910 needle pokes).

Keywords

ITP, Immune Thrombocytopenia, venipuncture, bleeding, platelets, pain reduction, needle phobia

Results

Twelve children enrolled in the ITP Poke-R Club (26%, n=46) responded to PDSA surveys. The majority of respondents (58%) were 6-10 years old, diagnosed with ITP for 1-5 years (67%). All learned about the Poke-R club through PDSA; none heard about it through their hematologist, nurse, hospital, clinic or Buzzy®.

On average, children ranked their fear of pokes and anxiety level around treatment as a 6/10 (answers ranged 0-10) *before* introduction to the Poke-R club, and 3/10 (answers ranged 0-8) *after* enrollment (Figure 1); median difference was 3 between needle phobia scores before and after Poke-R club introduction (range 0-8) (p=0.002). The window of time during which participants worried about treatments, draws, or shots ranged from never worrying, to more than 2 days before, with most patients worrying the most 10 minutes before venipuncture.

Seventy-five percent of respondents had their blood drawn over 11 times in the past year. The number of times a child received an ITP treatment requiring a poke ranged from 11+ times to no treatment received in the past year requiring venipuncture.

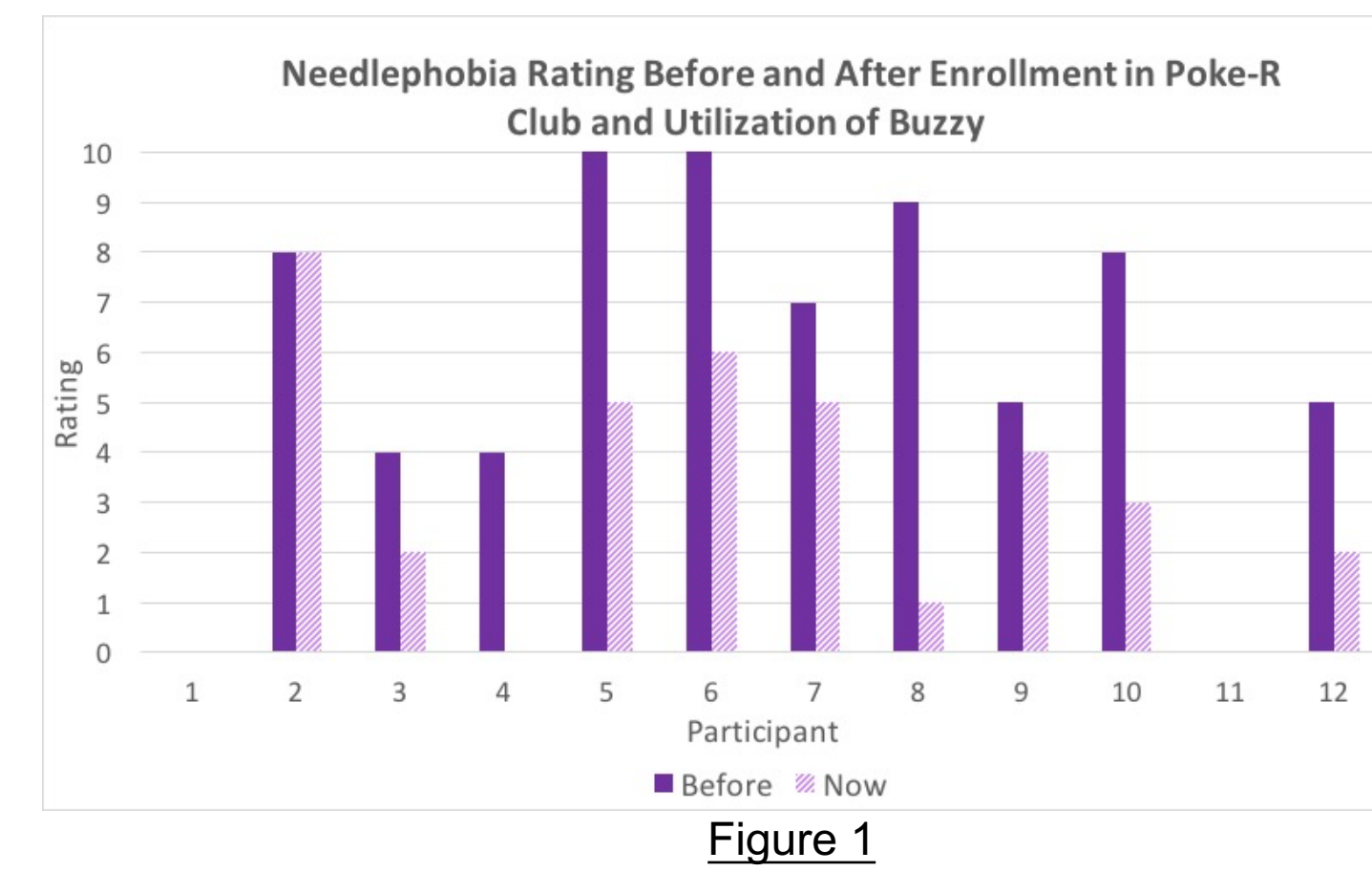


Figure 1

A majority of respondents claimed the best part of the program was BUZZY (67%) or that it made the child feel special (58%) (Figure 2). Eight of 12 respondents liked everything about the program, three found the distraction cards unhelpful, one said BUZZY was the least useful.

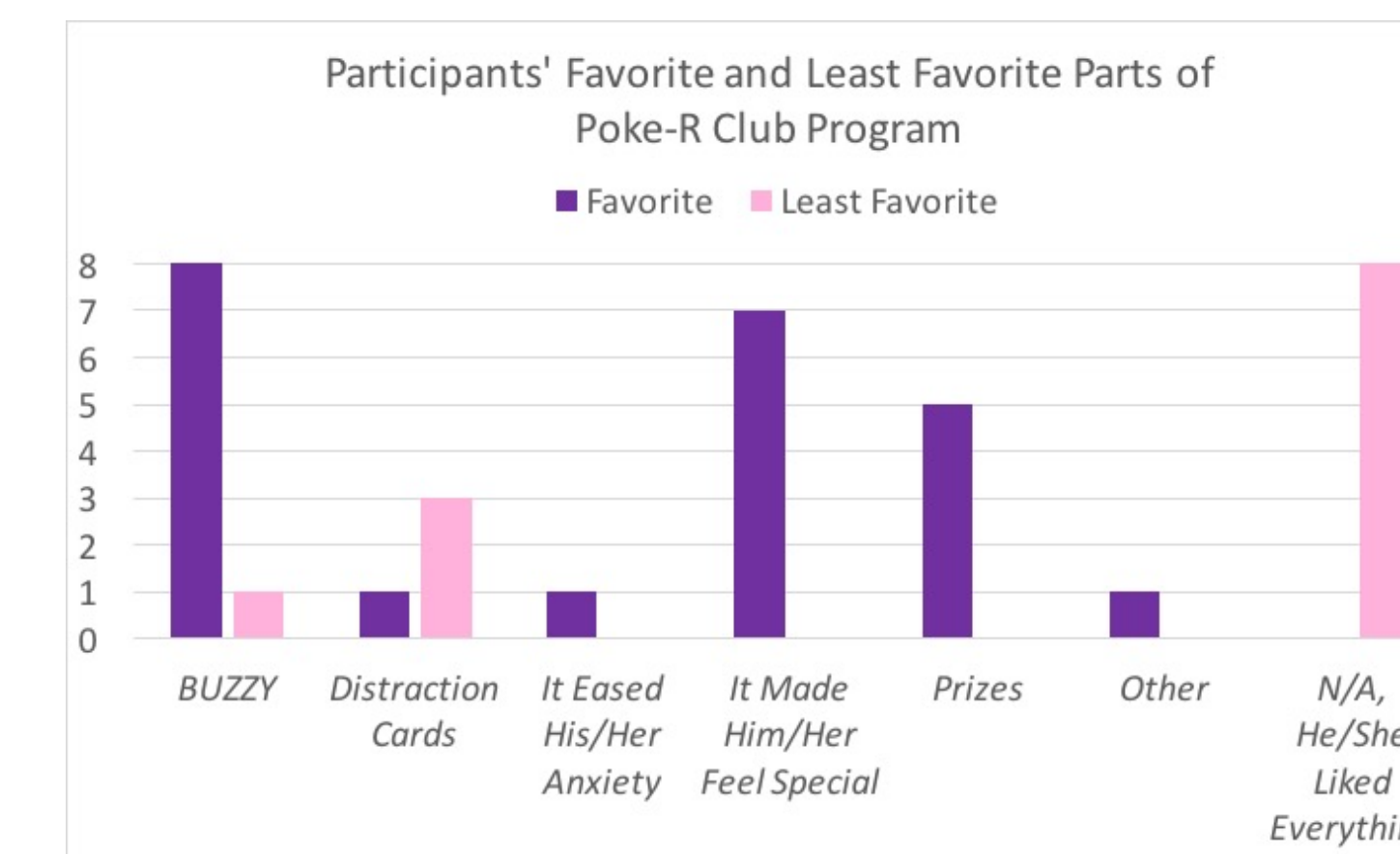


Figure 2

Parents rated the efficacy of BUZZY in pain management between 0/10 to 5/10 (avg= 2) Figure 3). Eleven parents claimed their child only feels a small discomfort during pokes but Buzzy and the Poke-R club make treatment and draws more bearable, one parent said their child couldn't tell the difference with or without BUZZY and treatment still hurts. Eleven children appreciate the Poke-R club because they don't feel as alone, they look forward to the prizes, and the club makes the pokes more bearable; one patient said the Poke-R Club does not make a difference to her (Figure 4). Overall, the Poke-R Club program was rated 9/10 on average (Figure 5).

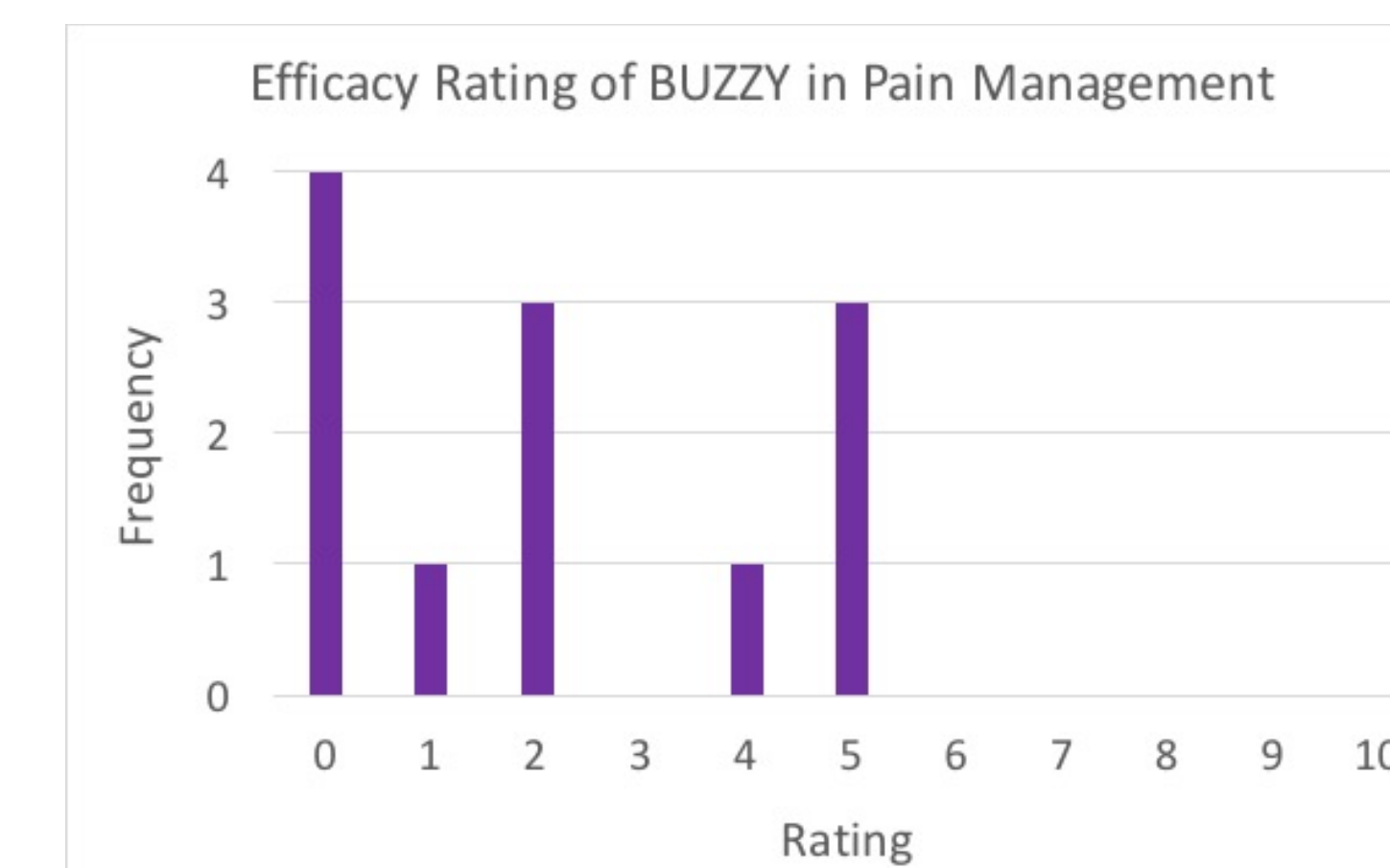


Figure 3

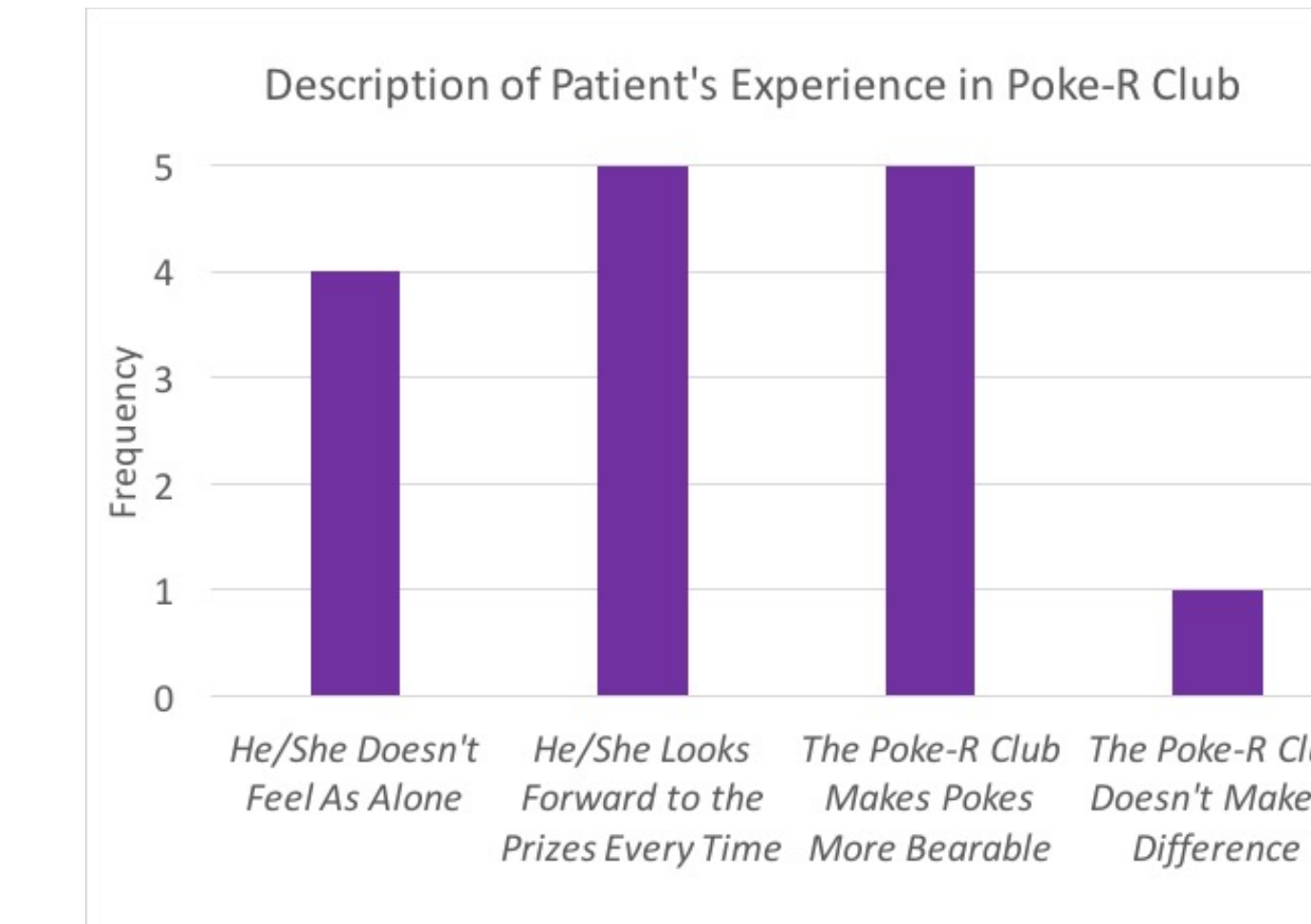


Figure 4

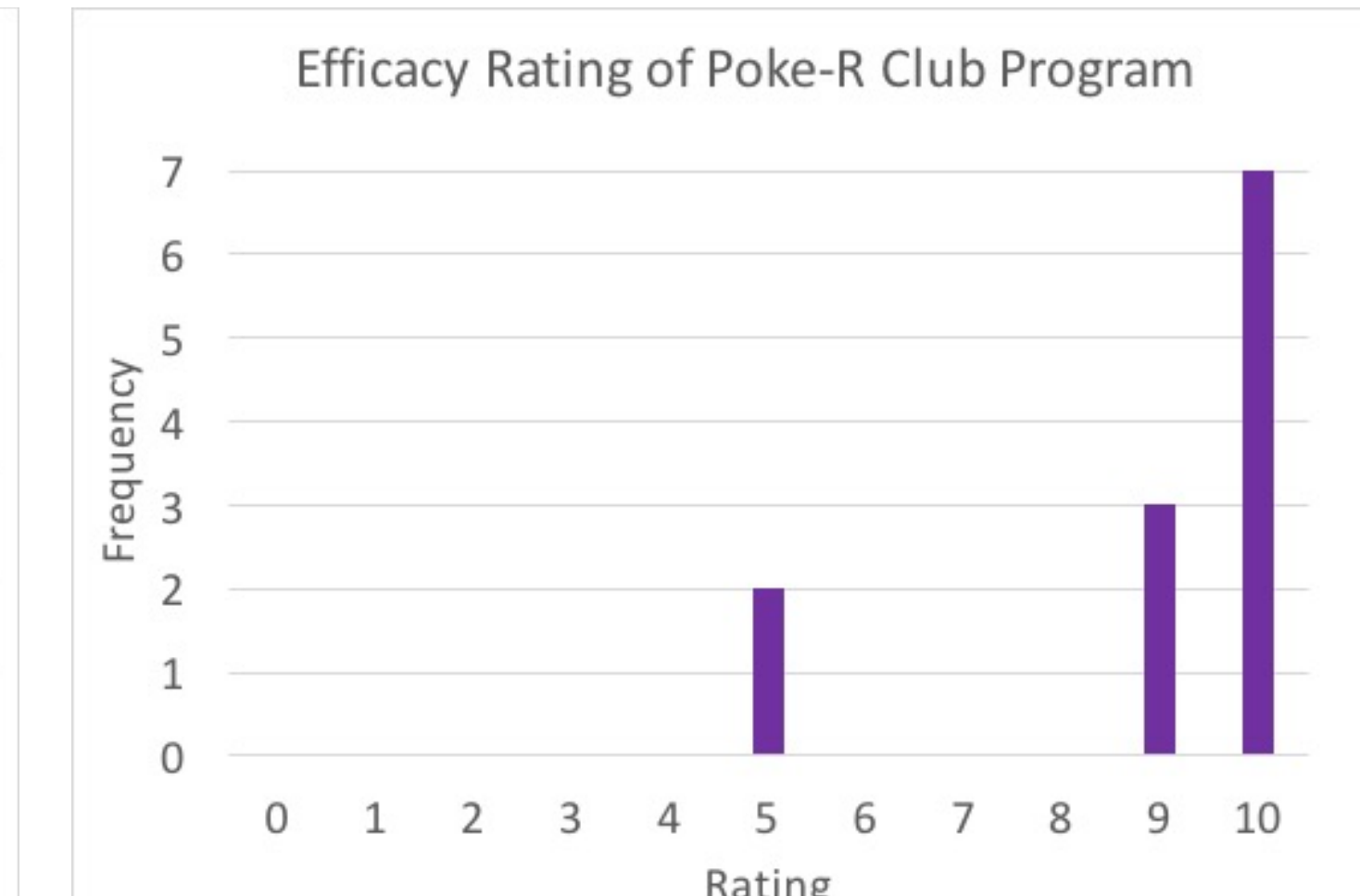


Figure 5

Conclusions

Most programs for child hematology/oncology patients are created for those with cancer. PDSA designed the ITP Poke-R Club to empower kids with ITP by alleviating needle phobia and giving patients a support group of their own.

Each child receives a drawstring pouch, chip, scorecard, and BUZZY device with their first needle stick and receives additional chips and distraction cards with each "poke." They track their chips on a scorecard and once the child collects 10 chips, they receive a prize from PDSA. The Program Overview included with each kit has additional tips and suggestions for medical professionals and parents on easing pain and fears. Many members share on PDSA's private Facebook group their positive experiences within the club.

PDSA partnered with BUZZY for pain relief (a vibrating ice pack that confuses the body's nerves thereby dulling injection pain). Previous studies demonstrated a correlation between BUZZY usage during treatments or diagnostic tests requiring venipuncture and a decrease in pain scores and lower anxiety levels during the procedure (Moadad 2015; Bahorski 2015; Canbulat 2015). In our study, BUZZY was proven to be the best part of the Poke-R Club program, although parents claimed that BUZZY was only partly efficacious in their child's pain management.

Needle phobia significantly decreased after enrollment in the Poke-R Club, demonstrating that PDSA has accomplished its goal in minimizing the anxiety correlated with treatments, draws, and pokes, although Buzzy doesn't necessarily eliminate pain from venipuncture. The program had a positive impact on pediatric patients with ITP, and is most effective for children and preteens who have chronic ITP (lasting more than a year).

In the future, community building within the Poke-R Club could be increased if enrollment in the Poke-R Club was encouraged by doctors and nurses. PDSA would like to expand the program to include more children for a greater impact and survey a larger sample size.