

Atraumatic Care: Reducing Pain in the Pediatric Population During Painful Ambulatory Procedures

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Background

Atraumatic Care as defined by Wong is "the provision of therapeutic care in settings by personnel, and through the use of interventions that eliminate or minimize the psychological and physical distress experienced by children and their families in the health care system." The philosophy of Atraumatic Care identifies methods by which professionals can provide pharmacological and non-pharmacological interventions to pediatric patients facing potentially painful and/or anxiety provoking procedures. One such intervention is Buzzy™, a non-pharmacological pain management tool.

What is Buzzy™?

Buzzy™ is a pain relief device that uses cold ice wings and vibrations to help reduce pain for children by desensitizing the nerves. This is done as the A-beta and C nerve fibers are stimulated by the vibration and cold sensations respectively. This interrupts the transmission of pain. Buzzy™ can be used for IV starts, injections, blood draws or any potentially painful or scary procedure.



Question

Will patients and/or their parents feel that utilization of the Buzzy™ device helped minimize pain and anxiety during potentially painful procedures such as blood draws, IV starts, injections, and finger sticks in an ambulatory pediatric setting?

Implementation

Education was provided to nursing staff and Child Life Specialists in the ambulatory pediatric setting by the Child Life Manager. She also reviewed with staff implications for use and contraindications according to the information in the Buzzy™ package insert. Buzzy™ was purchased and made available for utilization by trained staff in the ambulatory pediatric setting. Buzzy™ was stored along with frozen wings in each medication room. This provided easy access for staff, and ability to utilize Buzzy™ with all appropriate procedures. Buzzy™ was applied by either Child Life Specialists or nursing staff during potentially painful procedures.

A seven question survey was developed for completion by patients and/or parents. The questions included: was the child fearful before the procedure, if they heard of or used Buzzy™ before, whether Buzzy™ was helpful and would they ask for Buzzy™ again? It also identified the type of procedure the child experienced and collected demographic information on age and gender. IRB approval was obtained and guidance provided by the nursing research department. Over the course of one year, 50 surveys were completed by patients and/or their parents.

Results

The Buzzy™ device was used on n=50 patients presenting to the ambulatory pediatric setting at MetroHealth with the subsequent anonymous survey being completed. Mean age: 8.08 (SD 5.788, range 0-20). Descriptive statistics were used to categorize the frequencies of each response item. Buzzy™ was used on n=26 (52%) males, and n=24 (48%) females which is represented in figure I. Buzzy™ was used 71.4% during well child visits, and 28.6% in urgent care. Most common procedures for Buzzy™ included: immunizations (n=35, 70%); blood draws (n=12, 24%); IVs (n=4, 8%); and finger sticks (n=1, 2%) which is represented in Table II. Only 16% (n=8) had heard of the Buzzy before; and 10% (n=5) had previously used the device. All respondents indicated the Buzzy™ had been adequately explained to them prior to use. After use of the device, n=40 (80%) reported it decreased fear associated with the painful procedure, and n=42 (84%) would ask to use the device again for future painful procedures.

Table I: Number of Participants

	n	Percentages
Male	26	52%
Female	24	48%
Total	50	



Table II: Procedures for which Buzzy Was Utilized

	n	Percentage
Immunizations	35	67%
Blood Draws	12	23%
IVs	4	8%
Finger Sticks	1	2%

Figure I: Buzzy Reduced the Fear associated with Painful Procedure

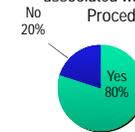
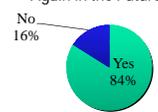


Figure II: Would Use Buzzy Again in the Future



Implications for Practice

Buzzy™ is a non-pharmacological device that can be employed as an effective pain management strategy by any member of the healthcare team along with other non-pharmacological interventions.

Future Research

Replication of this study in other ambulatory settings such as dermatology, dentistry, and surgery as well as inpatient pediatric units would offer additional information regarding the utilization of Buzzy™. We would expect future results to support the current findings.

References

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