Pain, Pain Buzz Away: “Bee”ating Needle Phobia

Global public health can be improved with effective management of needle fear.

Needle Phobia Definition
• Defined as needle fear that is:
  – Persistent
  – Excessive
  – Unreasonable
• Focus of the fear can be on:
  – Blood and/or injections
  – Medical context itself
  – Insertion of foreign substances into the body

Needle Phobia Statistics
• With approximately 12 billion injections per year worldwide, children have a lot of reasons to be SCARED
• Affects 3.5% to 25% of the population, depending on the reference
• If needle fear develops, it can be a chronic issue that affects a person for decades

Why Does a Needle Phobia Develop?
• Adults can often trace their needle phobia back to one traumatic procedure that occurred in childhood
• First memory might be of an injection
• Injections hurt, so learn to fear subsequent needles
• Immunizations are often completed by a stranger, which can further traumatize children

Why Does a Needle Phobia Develop? continued
• Learn to fear needles from our parents or significant adults – “If they are scared, I should be too”
• As kids, we might have been warned to stay away from needles, because we might “catch something”
• Remember being told to “Bee’ Brave”, despite being terrified
Why Does a Needle Phobia Develop? cont.

- Could develop associatively – A child sees an elderly adult with an IV who later dies
- Children don’t understand why their parent would allow them to be “hurt” in this way
- Individuals in early childhood are exposed to the greatest number of needles (through vaccines) and are at most risk for acute suffering

Development of Needle Phobia

- 4 Ps
  - Predisposition
  - Precipitating factors
  - Perpetuation
  - Protection against the fear developing

4 Ps

- Predisposition
  - Genetics
    - Females are more at risk
    - Younger children are more susceptible
    - Hereditary
  - Life events
  - Temperament

4 Ps continued

- Precipitating factors
  - Trigger or catalytic event(s)
  - History of fainting
  - Experiencing negative needle-related event
    - Excessive bleeding
    - High pain sensations
    - Watching someone else have issues with needles
    - Hearing about needle phobia from a parent

4 Ps cont.

- Perpetuating factors
  - Distressing memories
  - Poorly managed procedures
  - Anxiety can increase the unpleasantness, pain, and distress experienced

4 Ps cont.

- Protective factors
  - Parent support and modeling can reinforce coping
  - Allow parents to advocate for pain medication
  - Behavioral predisposition to face a fear-inducing stimuli may be helpful
* “Bee” on the lookout for the prevalence of needle phobia in active vs. avoidant copers
Why are Kids at Risk?

- Our ability to handle stressful medical procedures is lowest as a child
- Children may not be able to reliably self-report their pain
- Children rely on adults to accurately interpret their behavioral distress to receive appropriate treatment

Why are Kids at Risk? continued

- Have not developed internal coping skills
- Children have difficulty understanding explanations of why the vaccinations are needed
- Preschool children see needles as a bodily threat and a possible punishment for wrongdoing

Identifying Needle Phobia

- Patients exhibit a marked, persistent, and excessive fear of needles
- Individuals can recognize the fear is excessive
- Needles invariably provoke an immediate anxiety response
- May avoid needles entirely

Identifying Needle Phobia continued

- Needles are endured with intense anxiety/distress
- Behaviors interfere with normal routine, functioning, and/or relationships
- Patient is severely distressed that they have the needle phobia at all

Needle Phobia Manifestation

- Physically – real bodily symptoms:
  - Palpitations
  - Increased heart rate or blood pressure
  - Shortness of Breath
  - Dry mouth
  - Panic, flailing, fleeing, and requiring restraint
  - Tremors/seizures
  - Fainting

Needle Phobia Manifestation continued

- Psychologically – changes in thought patterns and fears of:
  - Continued negative thoughts rushing through the mind
  - Something bad happening (i.e. fainting)
  - Losing control
Needle Phobia Manifestation cont.
- Behaviorally – acting differently:
  - Feel the need to escape
  - Difficulty watching the procedure
  - Avoidance of all medical contacts for fear that they may use a needle
  - Avoidance of all places that may have needles

Treatment Options
- Exposure therapy to decrease fear
  - Instruction
  - Participant modeling
  - Targeting of catastrophic thoughts
  - Teaches the patient that they can survive the "catastrophe"
  - Can be accomplished in one session, but may need additional intervention to retain the reduction of fear long term

Needle Phobia Case Study
- Consult from the lab supervisor who was contacted by the physician
- Anxiety medication prescribed by the doctor
- Stress points determined
- Plan created with the support person and the lab techs
- Distraction
- Verbal reassurance and deep breathing

Desensitization
- Can help lessen needle fear and decrease procedural anxiety overall
- Gradual exposure and repetition to help the event lose its anxiety provoking power
- Celebrate small victories
- Fear ladder analogy

Desensitization continued
- Decide which parts of the process will be the most stressful and determine the stress hierarchy
  - Tackle the least anxiety producing items first
  - Gradually increase the amount of time that the task can be tolerated
  - Work up and overcome the fears one at a time

Pain Does Not Have to “Bee” a Part of Health Care
Freedom from pain should be a basic human right limited only by our knowledge to achieve it
- Liebenskind and Melzack

https://www.youtube.com/watch?v=S9TqiOWTi18

Need for Pain Management
• Strong relationship between needle pain and fear
• Children want pain management interventions when the pain is at a lower level than adults
• People with poorly managed pain are more likely to develop increasingly fearful memories that create more distress at subsequent needle procedures

Need for Pain Management continued
• Intervention for acute pain during procedures is necessary to reduce or prevent long term effects of unmitigated pain
• Unpredictable and severe procedure-related pain can be associated with negative emotional and psychological implications

Effective pain management may help prevent needle phobia from developing at all

Need for Distraction
• The AAP and the American Pain Society both recommend minimizing and relieving stress during procedures
• Alternative focus helps:
  – Reduce pain perception
  – Kids tolerate pain
  – Decreases anxiety
  – Increases the sense of control
  – Enhances comfort
  – Promotes rest and sleep
Need for Distraction continued

- Empowering children and families
- Training children to be active agents in their own pain management
- Coping skills learned can be generalizable to other settings, situations, and times

Distraction Ideas

- Rattles
- Light-up Spinners
- Ipad
- Bubbles
- I Spy Books/Bottles
- Play-Doh
- Magic Wands
- Fidget Spinners

Need for Positioning for Comfort

- Children cope better when:
  - The environment is calm and the noise level is low
  - Parents are present and supporting them
  - They are sitting up for procedures, when possible
  - They are in control and can see what is going on around them
  - They are not immobilized by strangers

Move From Distrust to…

- From negative to positive coping:
  - Active listening and rapport building
  - Offering appropriate choices, when available
  - Education
  - Preparing children for procedures
  - Coping plans and rehearsal
  - Play and other psychosocial support for the entire family
  - Deep/slow breathing and relaxation techniques

Trust and Mastery

- Allowing children to focus on self helps them develop emotional intelligence
- Learning to direct their attention away from the stressful situation is empowering
- Kids can learn to trust the medical team and navigate experiences successfully
- Patient- and Family-Centered Care including parent presence during procedures

If healthcare can effectively decrease our society’s needle phobia, immunization rates will increase and the population will be healthier.
Resources


Resources continued
