

By  
I.C.McLeish

*What is the most effective way to manage needle-phobic children and adolescents, aged 2 to 19 years?*



Figure 1: Blood-injection-injury-phobias (

## CLINICAL ISSUE

- Needle related medical procedures (NRMPs) are common throughout most youth, healthy and unwell.
- Each year twelve billion injections are performed worldwide (McMurty et al., 2015).
- It is “the most common painful procedure worldwide” (McMurty et al., 2015, p.109).
- Needle phobias raise an issue in client compliance in seeking health care, this can ultimately be life threatening.

## FACT

- Evidence based research recommends distraction techniques and hypnosis as the most effective means of managing needle phobias, in children aged 2-19 years (Uman et al., 2013).

## MANAGEMENT

### - DISTRACTION TECHNIQUES

- Are more effective than no intervention at all, amongst children undergoing NRMPs.
- Activate a different section of the brain from the anxiety provoking NRMP (Kettwich et al., 2007).
- Decrease the amount of anxiety experienced by an individual, but not so much pain.
- Music and videos make pain more bearable (Sinha, Christopher, Fenn & Reeves, 2006).
- Children under the age of seven, receive better outcomes during NRMPs through the form of distraction and support (Salmon & Pereira, 2002) (Schechtner et al., 2007).

### - HYPNOTHERAPY

- Decreases pain, anxiety and stress experienced from a NRMP (Birnie et al., 2014).
- Is most effective in the long term compared to distraction, due to the retraining of the way a person thinks about NRMPs.

## NURSING RECOMMENDATIONS

### - NURSES SHOULD:

- be confident in the advice and technique they give/perform
- be upfront and honest with their patient. For example, say ‘it will hurt’
- be trained to perform hypnotherapy interventions such as the ‘magic glove’
- attend training days on the management of needle-phobic children and the use of effective coping strategies

### - WHEN A NRMP IS NECESSARY PATIENTS AND FAMILIES SHOULD:

- Receive information on:
  - the types of needle-phobia management available
  - why the NRMP is necessary
- Fill out a form for their appropriate health professional and answer questions based on:
  - the child’s level of fear
  - the type of management they prefer
  - if they would like a parent present
  - if there is a family history of needle-phobias.

This will ensure that nurses know how to approach the child most effectively, regarding their NRMP and ultimately the child feel more at ease (Karlsson, Rydstrom, Enskar & Englund, 2014).

## REFERENCES

- Birnie, K. A., Noel, M., Parker, J. A., Chambers, C. T., Uman, L. S., Kisely, S. R., & McGrath, P. J. (2014). Systematic review and meta-analysis of distraction and needle-related pain and distress in children and adolescents. *Journal of pediatric psychology*, 39(8), 783-803. <http://dx.doi.org/10.1093/jpepsy/jsu029>
- Karlsson, K., Rydstrom, I., Enskar, K., & Englund, A-C. D. (2014). Nurses’ perspective on supporting children during needle-related medical procedures. *International journal of qualitative studies on health and well-being*, 9(1), 1-11. <http://dx.doi.org/10.3402/qhw.v9.23063>
- Kettwich, S. C., Sibbitt, W. L., Brandt, J. R., Johnson, C. R., Wong, C. S., & Bankhurst, A. D. (2007). Needle phobia and stress-reducing medical devices in pediatric chemotherapy patients. *Journal of pediatric oncology nursing*, 24(1), 20-28. <http://dx.doi.org/10.1177/104345426296023>

### Population/Patient

**Information relating to question:** Children and adolescents aged two to nineteen years old.

**Explanation:** I chose this age range because people are most likely to have a needle phobia or experience some sort of fear from a needle when a child. For example, a bad first experience with a childhood vaccination could be the cause to a person's phobia. "Medical procedures, particularly needles, are among the most feared experiences of children" (Broome, 1990, as cited in Uman et al., 2013, pp.3). I wanted to include people up to the age of nineteen years. From personal experience, nineteen was around the age when I became more comfortable with NRMPs. World Health Organization, defines adolescents as around the age of 10 to nineteen (WHO, 2016). Hence, it seemed relevant to include nineteen in the age range. Infants under two years were not included due to interventions not being age appropriate (Uman et al., 2013). Furthermore, findings have shown that children are more responsive to hypnotic treatment than adults. This is due to wide use of imagination in children compared to a more realistic view of life (Rogovik and Goldman, 2007). Consequently, adults were excluded from the study too.

### Exposure/ Intervention

**Information relating to question:** Children and adolescents who underwent exposure to a needle related medical procedure.

**Explanation:** I will be focusing on articles involving children and adolescents aged 2-19 years, where interventions are put in place to help reduce people's fear and discomfort of NRMPs and ultimately their needle phobia. This will hopefully help them to become more compliant in seeking healthcare. I will also be researching a nurses perspective on supporting children during NRMPs.

### Comparison/ Control

**Information relating to question:** The use of distraction techniques versus hypnotherapy in the management of needle phobias.

**Explanation:** Evidence based research recommended that distraction techniques and hypnosis were the most effective means of managing needle phobias, in children aged 2-19 years (Uman et al., 2013). Therefore, I wanted to explore these areas further and perform a constructive comparison.

### Outcome

**Information relating to question:** To find the most effective way to manage needle phobic patients aged 2 to 19 years. Also to see if there is wide differentiation between distraction techniques, versus hypnotherapy.

**Explanation:** Seeing the benefit of using these techniques and the most effective way to manage needle-phobias in children when undergoing a NRMP.

### Time

**Information relating to question:** Not applicable

**Explanation:** Time is not applicable in this situation because I am looking at effective ways to manage needle-phobias in children and adolescents.

### References:

- Broome, M. E., Bates, T. A., Lillis, P. P., & McGahee, T. W. (1990). Children's medical fears, coping behaviors, and pain perceptions during a lumbar puncture. *ONF*, 17(3), 361-367.
- Rogovik, A. L., & Goldman, R. D. (2007). Hypnosis for treatment of pain in children. *Canadian family physician*, 53(5), 823-825.
- World Health Organization. (2016). *Adolescent health*. Retrieved from [http://www.who.int/topics/adolescent\\_health/en/](http://www.who.int/topics/adolescent_health/en/)
- Uman, L. S., Birnie, K. A., Noel, M., Parker, J. A., Chambers, C. T., McGrath, P. J., & Kisely, S. R. (2013). Psychological interventions for needle-related procedural pain and distress in children and adolescents. *Cochrane Database of Systematic Reviews*, 10(10), CD005179. <http://dx.doi.org/10.1002/14651858.CD005179.pub3>

### Rationale:

I chose to present my findings from my literature review in the form a poster. A poster provides a "quick way of visually conveying information about your work" (University of Edinburgh, 2015, para. 9). By summarising the main points of research in an informal way, a poster allows for a verbal discussion around the topic of interest (Ranse & Aitken, 2008). Posters are very effective at distributing research findings to a wide audience. They can be displayed in public areas, such as the hallway in the School of Nursing, and continue to attract people to view your research (Schneider & Whitehead, 2013). Posters are successful in public forums, as they draw attention to people through a medium of creativity and colour (Schneider & Whitehead, 2013). This attention to your work in a public forum or conference enables thought provoking discussion to occur around your research topic (Schneider & Whitehead, 2013) (Sherbinski & Stroup, 1992). By presenting your research in the form of a poster presentation, it not only enhances the viewers' knowledge but the researchers itself.

### References:

- Ranse, J., & Aitken, C. (2008). Preparing and presenting a poster at a scientific conference. *Journal of emergency primary health care*, 6(1), 1-9.
- Schneider, Z., & Whitehead, D. (2013). Writing and presenting research findings for dissemination. In Z. Schnieder & D. Whitehead (Eds.), *Nursing and midwifery research* (4<sup>th</sup> ed., pp.372-386). NSW, Australia: Elsevier.
- Sherbinski, L. A., & Stroup, D. R. (1992). Developing a poster for disseminating research findings. *American association of nurse anesthetists journal*, 60(60), 567-572.
- University of Edinburgh. (2015). *Presentations and posters*. Retrieved from <http://www.ed.ac.uk/institute-academic-development/postgraduate/taught-learning-resources/presentations>