

Evaluating the Accuracy of Pain Assessment in Adolescents

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Introduction

An accurate pain assessment, in addition to patient pain perception, is crucial in creating an appropriate pain treatment plan and in preventing further complications such as Amplified Pain Syndrome. The Global Burden of Disease Study in 2016, reaffirmed that pain and pain-related diseases are the leading cause of disability world-wide. The purpose of our project is to identify the pain scale tool that is most effective in yielding an accurate pain assessment in adolescent pediatric patients in an acute care setting. A presentation of the most up to date research regarding the use of the FLACC, NRS, and VAS pain scales in a pain assessment, as well as information on Amplified Pain Syndrome, was given to a group of expert nurses on the Pain Team and Rehab Unit at Cincinnati Children's Hospital Medical Center. The nurses were given a post questionnaire allowing them to demonstrate picking the appropriate pain scale in a given patient scenario.

Literature Search

Databases

- Cinahl, PubMed, Google Scholar

Search Parameters

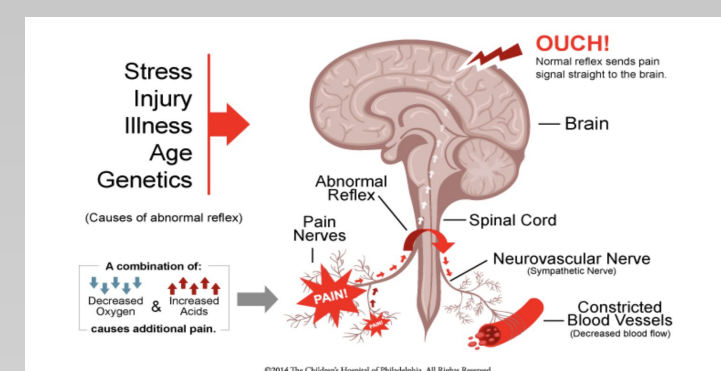
- Articles published within the last 5-10 years

Keywords:

Cincinnati
pediatric
children parent
amplified FLACC
NRS rehab
pain
history
syndrome involvement
psychology Children's
assessment inpatient
chronic

Current Evidence for Practice Change

Many adolescents are experiencing debilitating pain that affects their everyday lives, specifically, teens being newly diagnosed with a condition called Amplified Pain Syndrome. Amplified pain syndrome can result from ineffective pain management from pre-existing injuries, illness, or psychological stress. (Children's Hospital of Philadelphia, 2014)



Themes found in literature search:

1. **The key to effective pain management is accurate pain assessment**
 - validity of current pain assessment tools
 - FLACC, NRS, VAS have been found to be reliable when used in the appropriate clinical settings
2. **Pain is subjective**
 - Pain assessment includes the perspective of the provider and perspective of the patient
 - We need to use a method that can find a way to meet in the middle of both perspectives
3. **Pain is multidimensional therefore pain assessment should be multi dimensional**
 - Pain is both physiological and psychological
 - To acquire an accurate and complete assessment of pain, we need a tool that includes physical and psychometric changes
 - The QUESTT method:

Question the child

Use the age and developmentally appropriate pain-rating scale

Evaluate behavior and physiological changes

Secure parental involvement

Take the cause of pain into account

Take action and evaluate results.

(Brand & Al-Rais, 2019)

Education Plan & Implementation

Expert Opinion:

- Presentation to Cincinnati Children's Pain Team nurses utilizing an informational brochure and hand out
- Pain Team suggested an altered education tool to use when educating floor nurses

Floor Nurses

- Virtual education session was conducted utilizing the suggested QUESTT badge clip, an informational handout, and additional resources being sent to the floors at Cincinnati Children's

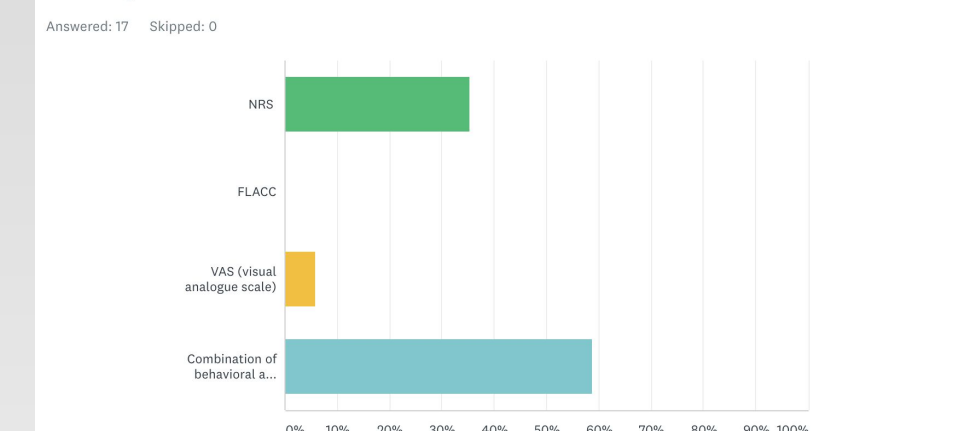
Post- Quiz

- A survey monkey consisting of 5 questions regarding the information presented and the individual nurse's opinion on the likely effectiveness of the tool was administered with our educational tool

Results

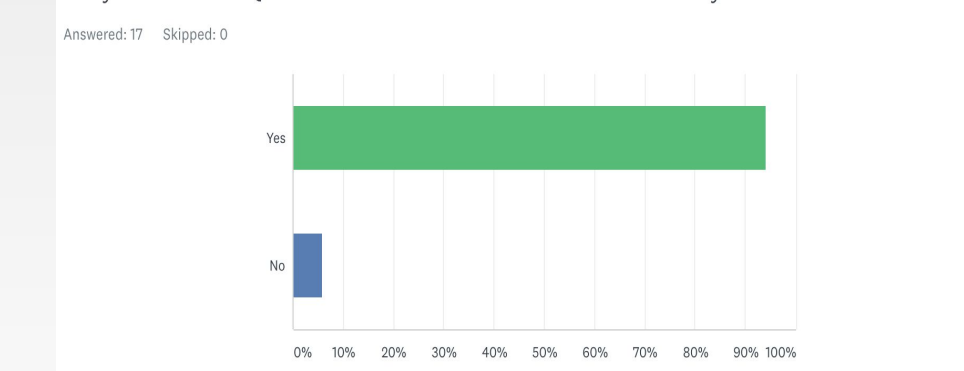
- Data showed that after presentations, 100% of survey participants could identify the factors of Amplified Pain Syndrome

Scenario: An 18 year old female is admitted with a history of sickle cell. She has increased pain in her extremities and is unable to perform ADLs. She reports laying in bed all day is the only thing that helps. Which pain scale(s) would you use?



- About 60% of participant nurses agreed that a multi-scale approach was best in this scenario above.
- On a scale from 0-100, nurses were asked to evaluate their confidence performing pain assessments. On average nurses rated themselves at a 78.

Do you feel the QUESTT method would be effective on your floor?



- To improve confidence in pain assessments and to provide a more holistic assessment, 94% of nurses voted that the "QUESTT" method would be a valuable tool on the nursing unit.



Feedback

- Educate all nurses on QUESTT
- Create a badge for an easy resource.
- Conduct a study to evaluate the reliability of the QUESTT method.

Lessons Learned

The way in which healthcare teams used to treat pain is no longer as simple as it used to be. They have become more creative with supplemental nonpharmacological interventions to oftentimes try first before a med is given. Pain interventions that are currently used in practice are aromatherapy, scrambler therapy, physical positioning, hypnosis, and art therapy which includes music, touch, etc. Distraction therapy is also very common considering it works on a lot of pediatric patients. Research shows that the most effective therapies are multimodal therapies.

References

Brand, K., Al-Rais, A. (2019). Pain assessment in children. *Anesthesia & Intensive Care Medicine*, 20(6), 314-317. <https://doi.org/10.1016/j.mpaic.2019.03.003>

Children's Hospital of Philadelphia. (2014, February 23). Amplified Musculoskeletal Pain Syndrome (AMPS). Retrieved from <https://www.chop.edu/conditions-diseases/amplified-musculoskeletal-pain-syndrome-amps>