RIME AND REASON: TEACHING ABOUT CHILD ABUSE

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Disclosures

I have nothing to disclose.

Audience Participation Exercise

List all the possible opportunities where you may educate someone about child abuse.

Objectives

- Analyze use of frameworks for teaching about child abuse
- Recognize expectations for various levels of learners
- Identify resources for teaching other professionals about child abuse

Bloom's Taxonomy of Educational Objectives

- Divides learning into three domains
  - Cognitive
  - Affective
  - Psychomotor
- Within each domain skills and abilities are structured in a hierarchy

https://carleton.ca/viceprovost/blooms-taxonomy/

Miller's Prism of Clinical Competence

- Hierarchy of cognition and behavior
  - Knows: Fact gathering
  - Knows How: Interpretation
  - Shows: Demonstration of learning
  - Does: Performance integrated into practice

(Also known as Miller's Pyramid)

http://www.gp-training.net/training/educational_theory/adult_learning/miller.htm

Educational Frameworks

- Bloom's Taxonomy – 1956
- Miller's Pyramid –1990
- ACGME Six Core Competencies – 1999 (Anon) and Milestones
- RIME – 1999 (Pangaro)
- CanMEDS– 2005 (Frank; Royal College of Physicians)
- Entrustable Professional Activities: EPAs – 2006 (Ten Cate)
- Dreyfus and Dreyfus– 1986 (applied to med ed 2008, Carraccio)
- New Paradigms

https://jcesom.marshall.edu/media/53467/frameworks-for-learner-assessment-in-medicine.pdf

Why Frameworks?

- Scaffolds learning and assessments
- Guides teachers in assessments
- Provides a mental model for observations (assessments), evaluations (judgment), grades (benchmarking)
- Enables a common language for expectations

RIME Framework

- Four levels with increasing skill level
  - Reporter
  - Interpreter
  - Manager
  - Educator

Pangaro L. A new vocabulary and other innovations for improving descriptive in-training evaluations. *Acad Med* 1999: 74: 1203–1207.

Medical Education Evaluation Based on RIME

- Stanford's Criterion-Based Evaluation System (CBES)

RIME stage descriptions adapted from Pangaro & Holmboe, Evaluation Forms and Global Rating Scales, in Holmboe & Hawkins eds., *Practical Guide to the Evaluation of Clinical Competence*, Mosby 2008. p 40.

http://med.stanford.edu/md/faculty-resources/information-tools-forms.html#reporter

Frameworks

- Analytic – knowledge, skills, attitudes
- Synthetic – clinical activities
- Developmental – beginner, competent, expert
- Combinations of the above

Summary of Frameworks for Assessment of Competence

- Table showing definitions, examples, assumptions, advantages and limits for analytic, synthetic and developmental frameworks

Louis Pangaro and Olle ten Cate. *Frameworks for Learner Assessment in Medicine. AMEE Guide 78.*

https://jcesom.marshall.edu/media/53467/frameworks-for-learner-assessment-in-medicine.pdf

Table 1. ACGME Core Competencies [10]

Patient Care	The ability to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
Medical knowledge	Demonstration of knowledge of the established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care.
Practice-based learning and improvement	The ability to investigate and evaluate one's care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.
Interpersonal and communication skills	Demonstrates interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.
Professionalism	Demonstration of a commitment to carrying out professional responsibilities and an adherence to ethical principles.
Systems-based practice	Demonstrates awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

Mapping Milestones within RIME

- Milestones that benchmark learner progress

Table based on GREEN M.L., AAGAARD E.M., CAVERZAGIE K.J., CHICK D.A., HOLMBOE E., KANE G., SMITH C.D., JOBST W., 2009. Charting the road to competence: developmental milestones for internal medicine residency training. Journal of graduate medical education, 1(1), pp.5-20.

Louis Pangaro and Olle ten Cate. *Frameworks for Learner Assessment in Medicine.* AMEE Guide 78.

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Entrustable Professional Activities

- Tasks expected to be able to be competently performed
- Levels of expectations for specific tasks for students, residents, fellows, and other professionals (nurses, NPs, PAs, etc.)
- These can be "mapped" to competencies and milestones
- Expectations for primary care, emergency medicine, and for specific tasks may be resource dependent

A Possible Framework for Teaching and Learning About Child Abuse

Synthetic Framework	Expectation
Reporter	Recognizes signs of abuse Report suspicions to authorities
Interpreter	Able to distinguish normal vs. abnormal findings and interpret findings
Manager	Makes appropriate referrals Provides treatment
Educator	Advocates for child

Research

- Medical providers do not do well at recognizing normal/abnormal genital findings
  - *Finkel*
- Physicians do not always recognize AHT
  - *Jenny*
- Physicians do not always report suspicions of abuse
  - *Flaherty*
- Pediatric, FM and ED residents lack knowledge and skills
  - *Starling*

Teaching Opportunities in Child Abuse for Medical Professionals

- Patient
- Community
- Professionals
  - *Within specialties*
  - *Outside of our own specialties*

What Does a Primary Care Provider Need to Know?

- A primary care provider examines a 6 year-old girl who complains of dysuria and notices a small blood stain in her underwear.
- A school nurse notes that a 3rd grade girl has come to her office complaining of genital pain on Monday mornings, always after she returns from visiting her father's house.
- An Emergency Medicine physician examines a 7 year-old boy with an abrasion on his penis and a bruise on his symphysis pubis.

What Do These Scenarios Have in Common?

Scenario	Probable Diagnosis	Skill
A 6 year old with dysuria and blood	UTI or urethral prolapse	Recognize common dx
Third grader with genital pain after visits	Suspected abuse or poor hygiene	Recognize risk factors for abuse; know when to refer
Bruised genitalia and penile abrasion	Toilet seat accident/ zipper/abuse	Recognize accident vs. abuse

Answer: These are all situations expected to be handled in a primary care office – Recognize, Interpret, Manage

Key Required Concepts for the Learner

- Knowledge:
  - *Is there a medical diagnosis to explain the findings?*
  - *Is the child developmentally capable of causing this finding (injury)?*
  - *Is there a classic pattern to the injury that is suspicious for abuse?*
  - *Does the history fit with the finding?*
  - *Was there a disclosure or other history resulting in a suspicion of abuse?*

Knowledge Basics

- Awareness of various presentations of abuse
- Sentinel injuries
- Good foundation of pediatrics to recognize "other" problems
- Recognize that lack of history or varying history is suspicious for abuse
- Knowledge of child development
- Recognition of normal vs. abnormal genitalia
- Other

Skills Basics

- Able to differentiate/analyze most likely diagnosis
- Perform appropriate examination (genitalia and PE for physical abuse)
- Communicate effectively for obtaining history
- Communicate report to child protective services as needed
- Document findings
- Navigate system of referral to agencies, advocacy center, CAP
- Other

Attitude Basics

- Advocate for patient's needs
- React professionally to situation

What Are the Next Steps When Physical Abuse Is Suspected?

- A 3 month old has a swollen, tender lump in his right thigh and you are suspicious that there is a femur fracture. Mom and her boyfriend noticed it this morning and brought him in to see you. The baby cries when his leg is moved and is irritable.

Resources: Physical Abuse

Key Required Concepts for the Learner

- Knowledge:
  - *Recognition of possible abusive trauma*
- Skills:
  - *Follow protocol for work-up of non-accidental trauma*
  - *Complete history and physical to look for other signs of abuse*
  - *Report to authorities*
  - *Evaluation of siblings*
- Attitude:
  - *Advocate for patient needs*
  - *React professionally*

What Do You Say When Law Enforcement Authorities Ask if the Injury Occurred in the Crib?

What to Say to Authorities

- The most likely mechanism of fracture is torsional.
- There is no new bone formation so the injury likely occurred within the past few days.
- The fact that there are no bruises does not help you in determining abuse vs. accident.
- The infant likely could not generate enough force at this age to fracture his leg.
- Fractures due to crib entrapment are uncommon, if not rare.

Key Required Knowledge Concepts

- Is the fracture morphology consistent with the direction, magnitude and rate of loading described by the mechanism?
- What is the child's developmental capabilities and could the child have generated the necessary energy, independent of the "outside" forces, to cause the observed injury?
- Did the event generate enough energy to cause this fracture?
- Were there structural factors of the bone itself that contributed to the likelihood of fracture?"

Pierce, et al. Evaluating long bone fractures in children: A biomechanical approach with illustrative cases. *Child Abuse and Neglect* 28 (2004): 504-524.

Other Physical Abuse Resources

- Lindberg DM, Lindsell CJ, Shapiro RA. Variability in expert assessments of child physical abuse likelihood. *Pediatrics* 2008; 121; e945. http://pediatrics.aappublications.org/content/121/4/e945.
- Kellogg ND. Evaluation of suspected child physical abuse. *Pediatrics* 2007; 119; 1232. http://pediatrics.aappublications.org/content/119/6/1232
- Flaherty EG, Perez-Rossello JM, Levine MA, et al. Evaluating children with fractures for child physical abuse. *Pediatrics*. 2014 Feb;133(2):e477-89.
- Valvano TJ, Binns HJ, Flahert EG, Leonhardt DE. Does bruising help determine which fractures are caused by abuse? *Child Maltrea*. 2009;14(4): 376-81.

Guidelines

- Article looked at experts' responses to the likelihood a finding was abuse based on various scales.

Lindberg DM, Lindsell CJ, Shapiro RA. Variability in expert assessments of child physical abuse likelihood. *Pediatrics* 2008; 121; e945.

Key Communication Skills for the Fractured Femur Case

- Reporting
- Communicating concerns to the patient/parents
- Documentation in the record
- Communicating with the multidisciplinary team
- Communicating with other healthcare providers
- Letter/statement of impact of the injury to the child
- Testimony in court

Knowing When to Contact an Expert

- Interpretation of findings requires a higher level of expertise
- Need for collection of evidence and resources not available in setting
- Need for higher level of treatment
- Unfamiliarity with the latest literature/research
- Lack of confidence in skills (communication or other)

What do you expect the CAP* to do?

- You refer a 15 year-old girl to the child advocacy center because she has disclosed to her mother that a boy at school raped her last month. You have already examined her and notice that the hymen looks a little unusual. There is no discharge and you cannot test for STIs in your office. You make an appointment for her to follow-up the next day with the child abuse pediatrician at the advocacy center.

* Child Abuse Pediatrician (CAP)

What the CAP Can Do

- Interpret finding
- Have finding reviewed (by other experts)
- Evaluate for other injuries, infections, illnesses
- Determine needs for referrals and resources
- Advocate for patient needs
- Participate in multidisciplinary team review

Multidisciplinary Case Review

7. CASE REVIEW

- Discuss emotional support and treatment needs of the child and family members as well as strategies for meeting those needs
- Assess the family's reactions and response to the child's disclosure and involvement in the criminal justice and/or child protection systems
- Review criminal and civil (dependency) case updates, ongoing involvement of the child and family, and disposition
- Make provisions for court education and court support
- Discuss ongoing cultural and special needs issues relevant to the case
- Ensure that all children and families are afforded the legal rights and comprehensive services to which they are entitled.

NCA Standards for Accredited Members: 2017

Notice potential areas for teaching!

Key Required Concepts

- Knowledge:
  - *Deep cleft at the 6 o'clock position is suspicious for abuse*
  - *Risk for STIs, including HIV, need to be assessed*
  - *Risk for bullying secondary to school gossip*
- Skills:
  - *Need psychological support, community referrals*
  - *Writing an impact statement can support patient advocacy*
- Attitudes:
  - *Peer review is recommended for abnormal findings*

Resources: Child Sexual Abuse

Child Sexual Abuse Resources

- Adams Guidelines – Updated Guidelines for the Medical Assessment and Care of Children Who May Have Been Sexually Abused Abused http://www.jpagonline.org/article/S1083-3188(15)00030-3/fulltext
- AAP Sexual Abuse Guidelines – Committee on Child Abuse and Neglect http://pediatrics.aappublications.org/content/103/1/186
- CHAMP materials - http://www.CHAMPProgram.com
- ChildAbuseMD.com
- Impact statement materials - http://champprogram.com/pdf/How-to-Write-an-Impact-Statement-Dec-17-2015.pdf

Resources for Teaching and Learning Child Abuse Pediatrics

- Mandated Reporter Courses
- Pediatric Residency Curricula
- Child Abuse Pediatric Fellowship Curricula
- CME courses (like this one!)

Can We Apply a Framework for Teaching and Learning About Child Abuse?

Synthetic Framework	Expectation	Examples of where this material can be found
Reporter	Recognizes signs of abuse Report suspicions to authorities	Mandated reporter courses
Interpreter	Able to distinguish normal vs. abnormal findings and interpret findings	ECSA Adams/Lindbergh (Peer reviews)
Manager	Makes appropriate referrals Provides treatment	AAP Guidelines & Other CHAMP observership SANE courses
Educator	Advocates for child	CAP fellowship Experience (SANE/CHAMP)

Using Guidelines to Promote Learning

- Adams' Criteria
- Lindberg's Table
- AAP Guidelines for Sexual Abuse and Physical Abuse
- Skeletal Survey Guidelines
- Testing and Treatment and other CHAMP material

Interpreter Level Is Important

- Simple interpretation (Abuse? Y/N)
- Complex interpretation (mechanisms of injury, non-specific findings, accident vs. abuse scenarios, other)
- What is the level of RIME needed for a person to be able to write an impact statement?

A Word about Peer Review

- NCA Standard for Accreditation states that "medical professionals providing services to CAC clients must demonstrate, at a minimum, that 50% of all findings deemed abnormal or 'diagnostic' have undergone expert review by an advanced medical expert."
- Requires all examiners to be reviewed regularly – continuous quality improvement
- Not considered a second opinion (is a CQI activity and valuable educational process)
- Not all experts agree and review may add controversy to cases
- Peer review does not protect the reviewer from subpoena

Lessons for Today

- Recognize expectations vs. limitations
- Use tools for guidance and to provide education
- Create materials for learners of different levels (e.g. material for the public should be at a "reporter" level)
- Identify when other professionals need educational support

Questions and Comments