

# Narrative Medicine in an Evidence Based World



**JERRY B. VANNATTA M.D. FACP**

**DAVID ROSS BOYD PROFESSOR EMERITUS  
PROFESSOR EMERITUS IN MEDICAL HUMANITIES  
UNIVERSITY OF OKLAHOMA COLLEGE OF MEDICINE**

**CLINICAL PROFESSOR OF MEDICAL HUMANITIES  
CLINICAL DIRECTOR, PHYSICIAN ASSISTANT PROGRAM  
OKLAHOMA CITY UNIVERSITY**

# Narrative Medicine



- **Goals of the Talk**

- 1. to define Narrative Medicine
- 2. to make the argument that narrative is how the brain works most naturally, earliest age
- 3. to present the evidence that teaching narrative to medical students meets the goals of narrative medicine
- 4. to present the evidence that these goals are some of the same goals as we have for practicing medicine in general
- 5. To convince you that practicing narrative medicine can lead to improved medical practice

# Definitions



- **Narrative**
  - A story where characters are motivated to act – demonstrating intention, creating outcomes (causation)
  - So, two primary concepts one has to understand to understand stories are *intention* and *causation*
- **Foregrounding**
  - Styles of written discourse
    - ✦ Phonetic (alliteration), Grammatical(ellipsis), Semantic(metaphor, irony)

# Definitions



- **Transportation**

- The ability for a reader to be “absorbed” or “transported” like a traveler into a story
  - ✦ Includes characteristics of
    - Attention
    - Imagination
    - Emotion

- **Theory of Mind**

- The ability of one person to attribute *intention*, *beliefs*, and *emotions* to another individual
  - ✦ Occurs in normal people around age 4
  - ✦ False Belief Test

# The Big Caveat



- This talk is NOT designed to imply that without this knowledge one cannot practice medicine correctly.
- Obviously none of us were instructed in Narrative Medicine and we seem to be able to do just fine
- It is merely designed to describe what it is and that there is an evidence based process being put In place to demonstrate its usefulness.

# Narrative Medicine



Term coined by Rita Charon

Narrative Competence

recognize

absorb

interpret

be moved by patient stories

# Narrative Medicine



- **Recognize**
  - Recognizing the “Meaningful whole” of a story
    - ✦ Not only recognizing what the patient’s story (HPI) means In terms of making a dx, but also what it means in terms of the patient’s existential crisis of being ill.
- **Absorb**
  - To be transported into the story
- **Interpret**
  - Interpreting the story in multiple ways at once
- **To be Moved by the story of illness**
  - Be able to use the story to empathize with the patient’s illness

# Two Modes of Thought



- Narrative Mode and Logico-Scientific Mode
- Narrative
  - Jerome Brunner
    - ✦ His thesis in *Actual Minds, Possible Worlds* is
      - The human brain is built to understand the world through stories
        - It is built **Narratively**

# Narrative Mode of Thought



- **Definition of narrative**
  - A story where characters are motivated to act – demonstrating intention, creating outcomes (causation)
  - So, two primary concepts one has to understand to understand stories are *intention* and *causation*

# Evidence about the Narrative Brain



- Leslie, et al.
  - Demonstrated Causation in 6 month old babies
    - ✦ PhD Thesis, Oxford university 1979
  
- Woodward, et al.
  - Demonstrated Intention in 12 month old babies
    - ✦ Journal of American Psychologic Association, 2000.
  
- Inference
  - Our brains are built and can demonstrate narrative primitives as early as 6 months to a year.

# Narrative Mode



- Used to understand stories
- The Whole is greater than the sum of its Parts
- Characters, plots, themes, genre
- Organized to
  - Interpret meaning
  - Explore ideas

# Logico-Scientific Mode



- Used to understand Mathematics, Science, including Medical Science, and Evidence Based Medicine
- Whole is equal to the sum of its parts
- Organized to demonstrate truth
  - Hypothesis stated, experiment performed, and if one is unable to reject the hypothesis, truth is demonstrated.
- Medical Education organized this way

# How Narrative Mode of Thought can be used to Enhance Medical Education



- Patient Stories
  - ✦ When ill, we seek medical attention from a physician in order to seek interpretation of our story of experience
- This HPI
  - ✦ Will contain characters, intention, emotive content, and imaginative causation

# Medical Drama



- **Tragedy**

- The hero dies, is alienated, or loses something important
  - ✦ The helper is left with the sought after goods
  - ✦ The opponent is the illness
    - Favorite story: *Bastard Out of Carolina*

- **Melodrama**

- The hero conquers the opponent (illness)

The helper is happy as the hero keeps the sought after goods, good health

Novel: *The Woman Who Walked into Doors*

Roddy Doyle

# Medical Drama



- **Comedy**

- The Heroine Gets the sought after goods, usually a man, the story ending in a wedding or a meal symbolizing a wedding
  - ✦ “The Lady With The Pet Dog”
    - Chekhov and Joyce Carol Oates

- **Ironic Drama**

- Here it is unclear who is the hero, the roles of the characters change, and the sought after goods changes during the story
  - ✦ *Tender is the Night*
    - *F. Scott Fitzgerald*

# Medical Drama



- In medical drama which occurs several times a day
  - It is important to make sure the physician assigns to himself of herself the role of HELPER, and never the HERO
  - This is important so that the physician can
    - ✦ Always keep the patient in the hero position
    - ✦ To keep the physician from burning out
- In Medical Drama,
  - The patient is always the hero
  - The doctor is always the helper

# Role of the Reader



- Stories have an author (patient) and a reader (physician)
- Literary Stories
  - Invite the reader to empathize with various characters
  - It is the character's consciousness that is the magnet of empathy

# Woman Who Walked Into Doors



- *Ask me. Ask me. Ask me.*
- *Here goes.*
- *Broken nose. Losses teeth. Cracked ribs. Broken finger. Black eyes. I don't know how many; I once had two at the same time, one fading, the other new. Shoulders, elbows, knees, wrists. Stitches in my mouth. Stitches on my chin. A ruptured eardrum. Burns, Cigarettes on my arms and legs. Thumped me, kicked me, pushed me, burned me. He butted me with his head. He held me still and butted me; I couldn't believe it. He dragged me around the house by the clothes and by my hair. He kicked me up and he kicked me down the stairs. Bruised me. Scalded me, threatened me. For seventeen years. Hit me, thumped me, raped me. Seventeen years. He threw me into the garden. He threw me out of the attic. Fists, boots, knee, head. Bread knife, saucepan, brush, He tore out clumps of my hair. Cigarette lighter ash tray. He set fire to my clothes. He locked me out and he locked me in. He hurt me and hurt me and hurt me. He killed parts of me. He killed most of me. He killed all of me. Bruised, burnt and broken. Bewitched, bothered, and bewildered. Seventeen years of it>He never gave up. Months went by and nothing happened, but it was always there – the promises of it.*

# Literary Discourse



- Brunner tells us in *Actual Minds, Possible Worlds*
  - *Authors use at least three features of discourse to help the reader create meaning*
    - ✦ 1) triggering of pre-suppositions (implicit vs explicit)
    - ✦ 2) depiction of reality through a character's consciousness
    - ✦ 3) beholding reality through multiple perspectives
      - "The Lady With The Pet Dog"
        - Chekhov and Oates

# Literary Discourse and Medical Practice



- Physician must attend to the story through the filter she owns.
- She must attend to the author of the story and her consciousness in order to find the reason to empathize with them
- The story will be told subjunctively
  - There will always be several possible interpretations
  - Each symptom raises several pre-suppositions for the reader to attend to.

# Literary Discourse and Medical Practice



- The reader (listener) must use their imaginative powers coupled with their logico-scientific knowledge to understand the list of diseases that might be causing this experience and therefore which technology to access to complete the diagnosis, but also to discover and interpret what this experience means to the patient.
- It is the patient's meaning of this experience that the physician has the opportunity to recognize, and use this trigger for the expression of empathy

# Goals and Outcomes of Narrative Training



- **Goals**

- To teach careful reading
  - ✦ Which we hope leads to careful listening
- Improve empathy
- Improve diagnostic logic
- Improve virtue ethical thinking and habituate virtuous behaviors
- Provide vicarious experience
- To better recognize metaphors (codes) in written and spoken discourse
- To apprehend the “meaningful whole” of the story

# Outcomes of Narrative Training



- **William Osler**

- *It is surprising with how little study of the humanities a physician can practice medicine, but it is not surprising how poorly he can do it.*

# Outcomes of Narrative Training



- Brunner
  - First narrative psychologist
    - ✦ 1986 *Actual Minds, Possible Worlds*



- 1994 Miall et al.

- Foregrounding

- ✦ Phonetic ---- alliteration

- ✦ Grammatical ---- ellipsis...

- ✦ Semantic ---- metaphor and irony

- Found Foregrounding to be correlated with **reading times**.  
(increased)

- Foregrounding correlated with **affect**

- *He set fire to my clothes. He locked me out and he locked me in. He hurt me and hurt me and hurt me. He killed parts of me. He killed most of me. He killed all of me. Bruised , burnt and broken. Bewitched, bothered, and bewildered. Seventeen years of it>He never gave up. Months went by*

- Miall, DS, et al. Foregrounding, defamiliarization and affect: Response to literary stories. *Poetics* 22: p 389-407



- **2002: Miall**
  - Narrative Feeling
    - ✦ Experiments demonstrated
      - Reflection into Real Life
      - Identity Modifying processes
  
  - Miall, DS, et al. A feeling for fiction: becoming what we behold. *Poetics* 30, p. 221-241. 2002.



- 2004: Mar et al.
  - Review article addressing integration of evidence from neuroscience and discourse models of cognitive psychology
    - ✦ Reviews imaging data using PET and fMRI looking at neuroanatomy of emotional responses
    - ✦ Reviews readers' emotional response to characters and the emotion lasting long after the closing of the book
      - The “Sleeper Effect”
  - Mar, RA Oatley, K, et al Emotion and narrative fiction: Interactive influences before, during and after reading. *Cogn Emotion* 25:818-83. 2011



- 2006: Mar, Hirsch, Oatley
  - Reading fiction vs. non-fiction increases performance on *empathy* measures and *social acumen* measures
  
- Mar, RA, et al Exploring the link between reading fiction and empathy: Ruling out individual differences and examining outcomes. *Communications* 34, 407-428. 2009



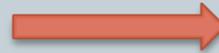
- 2009 Djikic et al.
  - Reading fiction vs. non-fiction
    - ✦ Leads to : Changes in Personality Traits
      - These changes are mediated by emotion
  
- Djikic, M. Oatley, K. et al. Creativity Research Journal 21(1), 24-29, 2009



- 2010 Green, M

- Studied Transportation and published correlations between transportation and *perceived realism* and *beliefs*

- Transportation = ATTENTION
  - IMAGERY
  - EMOTION

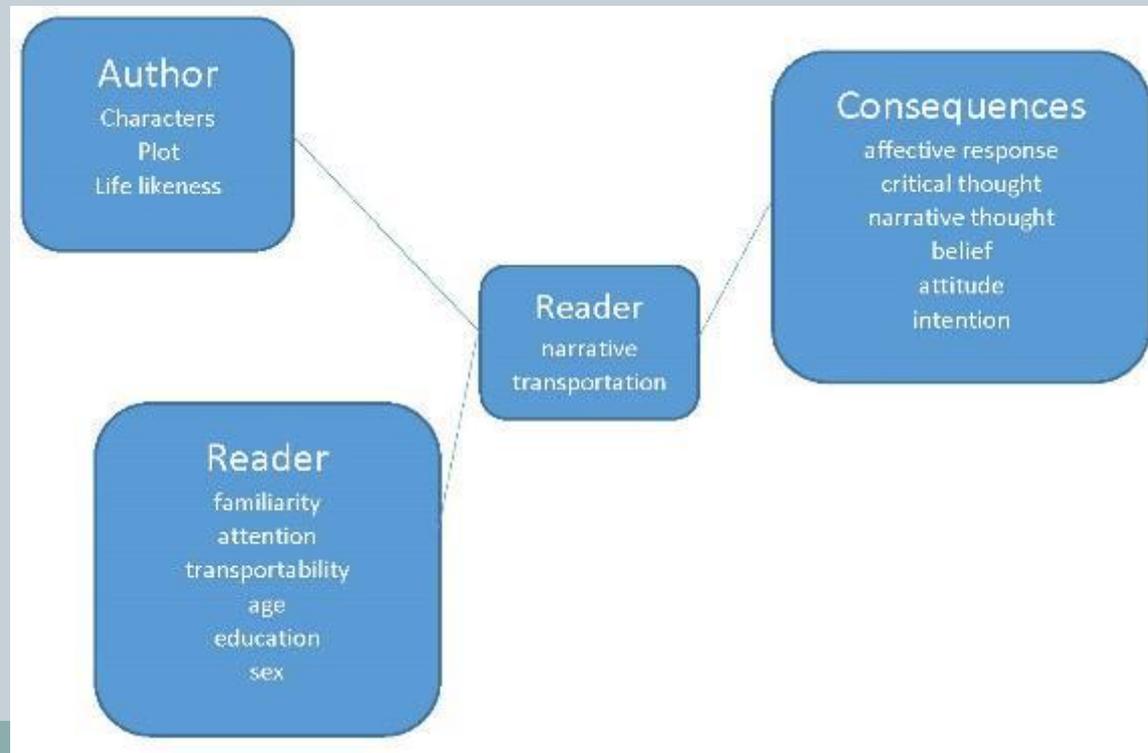


PERCEIVED REALISM  
BELIEF CHANGES

- Green, MC. Transportation Into Narrative Worlds: The Role of Prior Knowledge and Perceived Realism. *Discourse Processes*, 38:2, 247-266 . 2010



- 2015: Van Laer et al.
  - A meta-analysis of transportation theory, and Consequences and Antecedents of Narrative Transportation





- 2011: Mar, Oatley, et al.
  - Reviews readers' emotional response to characters and the emotion lasting long after the closing of the book
    - ✦ “Sleeper Effect”
  
- Mar, RA Oatley, K, et al Emotion and narrative fiction: Interactive influences before, during and after reading. *Cogn Emotion* 25:818-83. 2011



- 2013 Kidd DC et al
  - Published RCT reading fiction vs non-fiction
    - ✦ Fiction affects ToM development whereas non-fiction does not
      - 5 experiments showing reading fiction vs non-fiction is correlated with Increased *cognitive and affective ToM*
        - *Age, gender, education were non-correlating co-variates*
  
- Kidd, DC, et al, Reading Literary Fiction Improves Theory of Mind. *Science* 3 Oct. p. 1-4. 2013



- 2013 Bal et. al.
  - The emotional effect of reading fiction but not non-fiction increases over time
  
- Bal, PM, et al. How does Fiction Reading Influence Empathy? An Experimental Investigation on the role of Emotional transportation *Plos One* 8, 8(1) e55341 [Dol:10.1371/journal.pone.0055341](https://doi.org/10.1371/journal.pone.0055341) 2013



- 2015, Thompson, Vannatta et al.
  - Teaching Humanities to sophomore medical students provides *Context* to the basic sciences curriculum
    - ✦ Treating the patient rather than just a disease
    - ✦ Understanding observation skills are important
    - ✦ Recognizing doctors are fallible
  
- Thompson, B. Vannatta. J.B. Et al. Providing context for a medical school basic science curriculum: The importance of the humanities. *Medical Teacher* 2015, 1-6 Early Online.

# Outcomes of Narrative Training



- Shakir, M, Vannatta JB, et al, Effect of College Literature and Medicine Course on the Practice of Medicine. (In publication)
  - Effect of studying literature and medicine in college on practicing physicians
    - ✦ 1) treating patients as a whole
    - ✦ 2) vicarious experience
    - ✦ 3) improving empathy
    - ✦ 4) improving comfort with Death and Dying

# Outcomes of Narrative Training Goals



***To teach careful reading  
Which we hope leads to careful  
listening***

***Improve empathy***

Improve diagnostic logic

***Improve virtue ethical thinking and  
habituate virtuous behaviors***

***Provide vicarious experience***

To better recognize metaphors (codes) in  
written and spoken discourse

***To apprehend the “meaningful  
whole” of the story***