Cognitive Bias Kills

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WELCOME

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PRESENTER CREDENTIALS / BIO PRESENTER CREDENTIALS / BIO PRESENTER CREDENTIALS / BIO PRESENTER CREDENTIALS / BIO PRESENTER CREDENTIALS / BIO PRESENTER CREDENTIALS / BIO PRESENTER CREDENTIALS / BIO

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Virtual Delivery

We recognize this isn't as optimal as involving you in the case.

We recognize that it isn't as optimal as all of us using a simulation center and filming the case.

In the presence of the pandemic, this was what we opted for.

Please consider pausing and thinking about what you would do in real life, and not just in the setting of a cognitive bias lecture.

Objectives

1. Identify 3 cognitive biases to train on in the next year's simulation training scenarios.
2. Create a simulation case on a cognitive bias to implement following this conference.
3. Establish simulation training on cognitive biases at their home institution in the upcoming year.

Case #1

Location: Emergency Department
EMS call: 18-year-old male, unresponsive, found at bottom of the stairs, request trauma alert due to low GCS

You have 2 minutes to their arrival.

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Report: Found at bottom of stairs after mother heard a 'thud.' Not responding appropriately to stimuli. Tachycardic in 110s en route, otherwise vitals normal. Mother is on her way.

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HR 115; BP 135/75; RR 22; SpO2 97% on RA
GCS 7 (Not opening eyes, incomprehensible sounds, withdraws from pain)
E-FAST negative
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Won't stay still, risk of pulling IVs out.

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Intubated and sent for CT Brain, C-spine, with CXR, PXR, and 'trauma labs' sent off

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Lipase: 38
UA: Unremarkable
INR: 1.0
Drug screen: Negative

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LP performed and found to be viral meningitis.

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Anchoring and diagnostic momentum on the trauma alert from EMS call.

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Awareness is a simple strategy to teach. Individuals can implement a self-check that they can think about in the middle of real and simulated cases, am I forgetting something or focusing to much one one piece of the puzzle. Does something not make sense or fit better in a different picture. Did someone else suggest to me their diagnosis or bias me (e.g. *that guy is just a drug seeker*).

Case #2

Location: Dermatology Clinic

Next patient: Twenty-eight-year-old female here for filler injection.
PMH: Anxiety and depression.
PSH: History of Botox at the same office. Notes in chart about severe anxiety associated with medical procedures and prescribed valium to take prior to procedures due to that anxiety and having to cancel procedures in past.
PFH: No significant past family history.

Meds / Allergies: Takes fluoxetine (Prozac) daily and diazepam (Valium) PRN. No known drug or food allergies.

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Walk into the room: Anxious appearing female with her mother present.
Patient forgot to take her diazepam, but the mother talked her into it. Feels 'sick' over it, but adamant she wants to get it done since she is here. Mother notes this is how she has been over having procedures before. They found it in her purse while waiting in the procedure room and took the diazepam approximately 3-4 minutes ago.

VS: HR 109; BP 142/95; T 98.9; RR 26; SpO2 99%

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Patient is adamant she wants the procedure done. Has felt this nauseousness before and is similar to her past anxiety. Feels rapid breathing, similar to her anxiety. Denies any recent travels, fevers, or any other symptoms.

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28yo F at Dermatology for filler injection
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Just took her prescribed diazepam for the procedure few minutes prior to you entering the room.

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Procedure re-discussed, consent obtained.

Lidocaine injections as part of procedure. Patient notes she feels worse, more nausea and short of breath, her tachypnea had started to improve (26>20-22) increases again (26-28) and her tachycardia increases to 120s. Vitals otherwise similar.

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Patient has had lidocaine before with her other procedures, notes she just needs a few minutes. Denies any recent drug use.

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Ten minutes later: Patient feels a bit better and ready for filler. HR 110-115; RR low 20s; vitals otherwise similar to before.

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Filler injections: Patient notes she feels worse again, nauseous and short of breath again. Tachypnea back to mid 20s, tachycardia back to 120s, vitals otherwise similar.

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Response pattern to a new injected product (filler) was rapid increase in heart rate and respiratory rate with shortness of breath and nausea.

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Response pattern to a new injected product (filler) was rapid increase in heart rate and respiratory rate with shortness of breath and nausea.

Ascertainment bias: Thoughts shaped by what is expected to find. In this case, she noted she was nervous, had a response to lidocaine that was expected with anxiety and her prior history. May have been shaped to see her reaction again as anxious and nothing more.

Omission bias: Tendency towards inaction such as watchful waiting / tincture of time. Wait to see if it gets better may instead lead to her significantly worsening.

One method to teach is to consider detaching from other information learned about a case. In this it may be to look at each *event* in its own right (e.g. reaction with lidocaine as 1 event; reaction with filler a separate new event).

For omission bias, teach when it comes to your mind to consider doing it. Whether it was to abort the procedure / office visit, to consider calling EMS, or consider anaphylaxis and an epipen, then either commit to the action or give serious thought to why you are not going to commit.

Develop your own

Anecdotally, look to your own QA/I cases and RCA events. Look for cognitive errors and help build awareness.

Consider reviewing some of the work on cognitive biases (Croskerry's work is particularly good).

Don't get bogged down in all of the biases possible, focus on 1-2 to start.

QUESTIONS?

#IMSH2021

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