COGNITIVE BIASES

There have been numerous studies related to cognitive bias and its influence on patient care. Cognitive biases and personality traits affect clinical reasoning processes, which may lead to errors in diagnosing, treating, or managing medical conditions. (https://bmcmedinformdecismak.biomedcentral.com/articles/10.1186/s12911-016-0377-1)

Cognitive bias is a systematic error in thinking that affects the decisions and judgments that people make. Cognitive bias occurs when people are processing and interpreting information in the world around them. We are all subject to cognitive bias. It is important to understand cognitive bias in conducting incident investigations and root cause analyses. Cognitive biases may have influenced decisions that were made and actions taken leading up to an adverse event. Cognitive bias can also influence the incident investigation, resulting in an incomplete or inaccurate analysis of causal factors.

Cognitive psychologists identify two principal modes of managing and processing information:

- **Type 1** – quick, automatic thinking that responds to stimuli, is based on prior knowledge and experiences, and relies on intuition. It is efficient, fast, and often very effective; it is also imperfect and can lead to shortcuts and cognitive biases. Heuristics (shortcuts or assumptions due to prior experiences and associations) are used and may lead to errors with thinking and decision-making.

- **Type 2** - controlled thinking that is associated with slow and deliberate thought processing and requires time and resources. Fast moving healthcare systems do not easily lend themselves to this type of processing.

More than 100 cognitive biases have been identified. The following are some examples of cognitive biases:

- **Ascertainment bias**: decision-making shaped by prior expectations that predispose staff to expect the same behavior;
- **Diagnostic momentum (bandwagon effect)**: once a label has been assigned, momentum occurs and reduces the ability to consider alternatives. Can affect work-up of patients and how hand-offs are framed (e.g., focus on one diagnosis/complaint and not doing full assessment);
- **Framing effect**: sources of information and context can influence framing and future decisions (e.g., patient with substance abuse disorder and abdominal pain is treated for withdrawal and bowel perforation is not identified);
- **Anchoring bias**: giving weight to and reliance on initial information/impressions, and not adjusting this despite availability of new information;
- **Availability bias**: judging the likelihood of a diagnosis based on the ease with which examples can be retrieved (e.g., not considering less common diagnoses);
- **Search satisficing/premature closure**: cease looking for findings/signals once something has been identified (e.g., making a diagnosis before considering all information);
- **Confirmation bias**: selectively noticing/seeking information that confirms opinion instead of seeking information that disconfirms (e.g., failing to confirm correct site before starting a surgical procedure);
- **Hindsight bias**: distorts understanding of what was occurring at the time, based on an understanding of the eventual consequences (e.g., “Monday morning quarterbacking”); and
- **Fundamental attribution error**: perceiving errors as failures resulting from poor choices of others that would not have been made by evaluator (e.g., projecting self as better than the person who made the mistake).
COGNITIVE BIASES CONTINUED

Cognitive biases influence direct patient care experiences. It is not uncommon to hear a patient referred to as a “frequent flier” or with “numerous co-morbidities and is well known to staff”. This ascertainment bias predisposes staff to expect the patient to behave in a manner based on prior interactions and may result in ignoring or discounting current presenting symptoms.

Cognitive biases can also influence how an investigation of an adverse event is conducted. Hindsight bias is particularly problematic in conducting objective root cause analyses by failing to consider the situation and conditions that were in place prior to the event occurrence.

The Joint Commission lists the following factors that can predispose or increase the likelihood of cognitive biases:

- **Human factors**: fatigue, feelings, cognitive loading;
- **Patient factors**: lack of complete history, complex patient presentations/comorbidities;
- **Systems factors**: poor teamwork, collaboration, and communication; inadequate culture to support decision-making; workflow design flaws; inadequate processes to acquire information; insufficient time for information gathering and interpretation; poorly designed/integrated or inaccessible health IT; environment poorly designed.

While cognitive biases will occur, individuals need to have self-awareness and be willing to question others to test if cognitive biases are impacting patient care or influencing event investigations. Some ways to mitigate cognitive biases from impacting patient care or event reviews include:

- Promotion of organizational culture that supports decision-making processes;
- Enhance knowledge and awareness of cognitive biases (support discussion to expose biases and increase awareness of how they occur);
- Enhance professional reasoning, decision-making, and critical thinking (systematic method for presenting information to reduce framing; practice “diagnostic time-out;” utilize systematic methods for reasoning and critical thinking).

NEAR MISS IDENTIFICATION

The Sentinel Event Rules, while mandating the reporting of sentinel events, allow for voluntary reporting of near miss (NM) events. A NM is defined as an event or situation that did not result in serious patient harm, but could have under different circumstances (SE Statute, §8752 [3-A]). Identifying NMs and conducting RCAs for NMs can reveal systems issues and prevent a future occurrence of a SE. It has been estimated that for each preventable death, there are between seven and 100 close calls that occur before it.


The Agency for Healthcare Research and Quality states there are several advantages to studying NMs:

- NMs occur more frequently than adverse events, thereby providing more information and data for analysis;
- Reviewing NMs generally involve less emotion and stress than reviewing adverse events. There is less concern about liability claims and they are easier to investigate as staff are often more open to discussing the circumstances that led to the event;
- They provide information on both active and latent errors in the health care system. Active errors involve health care directly involved in patient care (e.g., wrong medication given). Latent errors are system- or design-related and often less obvious than active errors (e.g., look alike packaging);
- Studying NMs makes it possible to identify recovery strategies, often while the event is occurring. When errors go unnoticed, there cannot be recovery. Understanding recovery can lead to designing more resilient systems that can capture errors before they cause harm.

(https://psnet.ahrq.gov/webmm/case/254)

For NMs to be useful, they must be identified and reported, investigated and analyzed, actions implemented to create change, and evaluation to determine if changes were effective. This requires all employees to be engaged and to buy in to the process of improving safety and quality through identification, review, and implementation.

The identification and reporting of NMs can be challenging. Often, front line workers develop work-arounds when established processes or procedures are broken or ineffective. Staff may take shortcuts to compensate for production pressures that can create unanticipated risks. These work-arounds and shortcuts become normalized over time and may not be visible until there is an adverse event.
NEAR MISS IDENTIFICATION (CONTINUED)

Sometimes these broken systems are reported and leadership is not sufficiently responsive or, for economic reasons, do not address staff safety concerns. Alternatively, staff may feel there is not sufficient time to complete incident reports or may not feel comfortable reporting events.

Identifying and reporting NMs needs to occur on several levels, and there are a number of useful incident reporting methods: paper reporting, electronic reporting, emails, and phone calls to a hotline or individual. Currently, most facilities have some type of electronic reporting system. Patients and families should also be encouraged to report near miss events. An incident reporting system should be easy to use and not so lengthy or tedious that it prohibits reports from being completed. Additionally, staff should have ready access to whatever incident reporting system is used and be familiar with how to use it.

Management should encourage reporting of NMs and promote more and not fewer reports of NMs. If facilities notice the same type of NM events are being reported, it is likely an indication that prior reviews did not fully reveal all causal factors, or previously implemented actions were not effective. This provides an opportunity to conduct a deeper analysis and/or further evaluate what actions were implemented, why they were not effective, and what modifications are needed.

The SET collects and tracks NMs that are reported and includes this information in the Sentinel Event Annual Report.

JUNE 29TH EDUCATIONAL PROGRAM

The SET, in conjunction with Maine Primary Care Association Patient Safety Organization, held the second part of a two-part educational program focused on system analysis and root cause analysis.

Frank Korn, from Maine Medical Partners, presented information on surveillance and shared the following points:
- There is no specific measure that is effective;
- Patient safety surveillance data should be a compilation from several sources;
- Safety reporting is great at capturing local issues, although not necessarily a reflection of broader trends;

JUNE 29TH EDUCATIONAL PROGRAM (CONTINUED)

- Use National Data Trends/ Research and standards (NPSGs) to inform our processes; and
- Would conducting RCAs for near miss/no harm (risk adjusted-prospective) improve some of the barriers we see in the RCA process?

Jeff Brown, from the Maine Primary Care Association PSO, presented information about the Critical Decision Method (CDM). CDM is used for incident analysis to capture the perspectives of those involved in an event and to help explain why they acted as they did. This allows for a more in-depth review of conditions that contributed to an adverse event.

Angela Gibbs, from Inland Hospital, presented information about Motivational Interviewing with the key points:
- Focus on autonomy, collaboration, exploring, and evoking;
- Use open-ended questions, reflective listening, and brief summaries are essential;
- See the event through the eyes of the interviewee; and
- A culture of psychological safety is imperative so people feel safe to share.

Susan Levenseler, from Maine Medical Partners, shared an outpatient perspective of the performance improvement process. Some topics reviewed were: preparatory tools, RCA meeting guidelines, goals of action plan and measurement, strength hierarchy of action items, second victim and burnout effects.

The SET thanks Frank, Angela, Susan, and Jeff for sharing their expertise and experiences. Additionally, participants from numerous facilities added significantly to the learning by sharing perspectives and actively engaging. Thanks to all participants for taking the time to attend.

CDM resource:

Motivational Interviewing resource:

Hierarchy of Action Items resource:
http://www.patientsafetysolutions.com/docs/March_27_2012_Action_Plan_Strength_in_RCAs.htm
UPDATES FROM THE SENTINEL EVENT TEAM

When thinking about a culture of safety, ask yourself the following questions:

- Can you openly talk about difficult things with your supervisor and others in the organization?
- Is there a no-blame culture that supports reporting and analysis of adverse and near miss events?
- Is leadership accountable for implementing the required changes?

Reminders:

Per statute: The SET is to be notified of possible SEs within one business day after the event occurred or the next business day after the facility discovers that an event occurred. Internal deliberation must not delay this notification. If there is any doubt about whether a case meets SE criteria, please contact the SET to discuss. RCAs are due within 45 days of reporting the SE. Extensions for RCAs will only be granted for extenuating circumstances.