

PRAGMATIC DEBRIEFING with EMOTIONAL SURVEILLANCE



SIMULATION:
BRINGING LEARNING TO LIFE

#IMSH2021

WELCOME



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DISCLOSURE

SIMULATION: BRINGING LEARNING TO
LIFE

#IMSH2021



LOMA LINDA UNIVERSITY
School of Medicine



HEALTH
UNIVERSITY OF UTAH

SCHOOL OF MEDICINE

SIMULATION: BRINGING LEARNING TO
LIFE

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Overview: The three objectives will be defined and described with a 10 minute small group discussion in between objective 2 and 3 to break up the presentation and *prevent death by powerpoint**.

* Emphasis placed

PRESENTATION OUTLINE

Introduction

Section 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

Section 2: Implement pragmatic debriefing using the Discovery, Learning and Application stages of debriefing.

Section 3: Develop a plan for emotional surveillance during simulation activities using the Simulation Psychological Safety Algorithm (Henricksen, 2017).

Summary

INTRODUCTION

The Basic Assumption™

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The Basic Assumption™ is a core value that the Center for Medical Simulation developed and practices during its courses to help create a psychologically-safe learning environment for participants:

“We believe that everyone participating in activities at CMS is intelligent, capable, cares about doing their best and wants to improve.”

Educators around the world have adopted the Basic Assumption by displaying it in their simulation centers and including it in course materials. If you would like to use the Basic Assumption as a poster or within educational materials, **please include the Center for Medical Simulation citation (image file included in template).**

[Download Template](#)



IMPORTANT POINT!

STRESS IS NOT THE ENEMY!
It can help us focus and get things done.

How did a 2nd year resident avoid “the freeze” and stabilize the patient so quickly?

The ED had knowledge, probably had the equipment, and probably even recognized physiology.

**She recognized “the freeze”
*and moved on!***

Participant Goals During Simulation

- 1) Think and function during stress
- 2) Use consequences of stress to their advantage

These both help prepare them
to act during future (non-simulation) events!

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

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The purpose of simulation: Using briefing, simulation and debriefing to improve human and system performance. Halamek, et al. *Perinatology*.

<https://doi.org/10.1053/j.semperi.2019.08.007>
Accessed June 5, 2020

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

The purpose of simulation:

Put participants through simulation to engage them, help them discover their gaps, and turn performance into a skill that is quickly recovered during future stressful events.

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

The purpose of simulation:

**Put participants through simulation to learn to watch for stress impairment, both in themselves and in others
AND**

learn how to deal with that stress in appropriate ways by taking it away, decreasing it, or using it to their advantage.

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

The purpose of simulation:

Put participants through a simulation event to give them a dose of stress (*stress inoculation*) and then debrief so they can process the event in a meaningful and relevant way.

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

The wrong use of simulation:

Put participants through a simulation event to fail, or run the scenario until they fail.

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

What Is Psychological Safety?

- DEFINITIONS:

- **Individual Psychological Safety:** “A person’s sense that the immediate environment is safe; that actions taken will not be ridiculed; a belief that individual or team member’s mistakes will be utilized as a source of learning rather than a crime to be punished or covered up.”
- **Team Psychological Safety:** “A shared belief held by members of a team that the team is safe for interpersonal risk taking. In psychologically safe teams team members feel accepted and respected, and can speak up without fear of retribution.”

- Amy Edmondson

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

How Do I Obtain Psychological Safety For My Team?

Among many things, here are three recommended by an expert:

- 1) Frame the work as a learning problem, not an execution problem**
- 2) Acknowledge your own fallibility**
- 3) Model curiosity (ask good questions)**

- Amy Edmondson

**Efforts to develop Psychological Safety must be intentional and consistent.
There is lots yet to learn about this subject in simulation.**

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

It is incumbent on the leader to promote psychological safety, all the time!

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

**A team is a group of individuals
(minimum of two) working together to
achieve a goal.**

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.



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Leave the *COMPLEXITY* of life alone and meet simulation participants at the Basic AssumptionTM, assuming they are smart, skilled, and ready to learn and improve, despite the stress you are going to put them through.

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

Social situations and stage fright can cause stress, but keep in mind we have been doing “impression management” since kindergarten...

**RECOGNIZE THE “FREEZE”, DO SOMETHING PHYSICAL
TO GET “UNFROZEN”, then
GET THINGS DONE**



SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

Meet simulation participants at the Basic AssumptionTM, and teach them you are aiming to increase their stress capacity.

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**Give meaning to simulation by teaching them
simulation will increase their stress capacity, which
will help them avoid threat and improve resilience.**

They want to have high standards of care!

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

Use the expertise of the team:

Teach simulation participants to monitor their own stress and to watch for stress in other participants' so they can help them perform well during the simulation.

Aim to increase their stress capacity.

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

What is the difference between these 3 things?

FUNCTIONAL STRESS

FEAR

THREAT

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

How is fear different than emotions?



Coming to terms with fear

Joseph E. LeDoux¹

Center for Neural Science and Department of Psychology, New York University, New York, NY 10003; Department of Psychiatry and Department of Child and Adolescent Psychiatry, NYU Langone Medical Center, New York, NY 10016; and The Nathan Kline Institute for Psychiatric Research, Orangeburg, NY 10962

This contribution is part of the special series of Inaugural Articles by members of the National Academy of Sciences elected in 2013.

Contributed by Joseph E. LeDoux, January 9, 2014 (sent for review November 29, 2013)

The brain mechanisms of fear have been studied extensively using Pavlovian fear conditioning, a procedure that allows exploration of how the brain learns about and later detects and responds to threats. However, mechanisms that detect and respond to threats are not the same as those that give rise to conscious fear. This is an important distinction because symptoms based on conscious and nonconscious processes may be vulnerable to different predisposing factors and may also be treatable with different approaches in people who suffer from uncontrolled fear or anxiety. A conception of so-called fear conditioning in terms of circuits that operate nonconsciously, but that indirectly contribute to conscious fear, is proposed as way forward.

Pavlovian conditioning | emotion | survival circuits |

Pavlovian Fear Conditioning: A Technique and a Process

Fear is the most extensively studied emotion, and the way it has most often been investigated is through Pavlovian fear conditioning. This procedure involves presenting a biologically neutral conditioned stimulus (CS), often a tone, with a noxious or harmful unconditioned stimulus (US), typically a mild electric shock. As a result, the CS comes to elicit species-typical (presumably innate) behavioral responses (e.g., freezing behavior) and supporting physiological adjustments controlled by the autonomic nervous system (e.g., changes in heart rate, blood pressure, respiration) or by endocrine systems (e.g., adrenocorticotrophic hormone, cortisol, epinephrine) (7–12). Through fear conditioning, researchers thus have control of the antecedent conditions (the independent variables, namely the CS and US) and can measure the outcomes

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

We suggest reframing the emotional response to simulation as a challenge or a way to increase stress capacity, rather than asking about individual emotions.

**If you ask about emotions,
you will get an emotional response.**

If you reframe the intention of simulation as increasing stress capacity, participants can concentrate on learning.

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

Remember, she was taught to check the ETT to do something physical to get out of “the freeze”

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

**Trust the Basic AssumptionTM
and teach them to return to the basics of
what they know.**

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

Ask them "What happened?" to help them discover what happened.

Remove any stress barriers to learning so they can learn.

Help them apply their learning to future situations when they're under stress.

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

Can functional stress and psychological safety be present at the same time?

Can fear and psychological safety be present at the same time?

Can threat and psychological safety be present at the same time?

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Does the novice differ in how they respond to stress and fear compared to the seasoned practitioner?

Novice  **Expert**

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Everyone is expert in something, but nobody is expert in everything.

Turn a team of experts into an expert team.

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

**Failure is not an endpoint, it helps us know
where to go next.**

Failure is the best teacher.

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

Error is golden.

Error gives us boundaries.

Error is a chance to try again and get better.

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

“One can choose to go back toward safety or forward toward growth. Growth must be chosen again and again; fear must be overcome again and again.”
– Abraham Maslow



<https://www.eln.io/blog/maslows-hierarchy-of-needs-for-learners>

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

Safety = earlier identification and correction of deviation

Error = a misnomer; we do things we think are right, but when the situation or information changes we (hopefully) quickly change direction. If we do this fast enough while identifying small errors, perhaps big errors can be avoided.

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Simulation gives participants the opportunity to function and reason under stress and practice neuromodulation, which increases their stress capacity to reduce the incidence of an emotional responses when functioning in healthcare.

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- Even mild stress can impair cognitive capacity if there is no stress capacity.
- Stress capacity makes cognitive capacity available.
- Simulation helps participants perform under stress so they can perform when under stress in real life.
- We want sufficient stress to identify performance gaps, but not to the degree stress impairs cognitive capacity.
- Debriefing identifies where and how to improve.

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

Simulation participants will NOT recognize fear and threat in themselves. Rather, they will be reacting to it.

If they have an emotional response to simulation, the simulation should stop to allow for allostatic growth.

SECTION 1: Describe the relationship and purpose of briefing, simulation, pragmatic debriefing, engagement and high reliability principles.

The 5 HRO Principles

Prevention

- 1) Preoccupation with failure**
- 2) Reluctance to simplify**
- 3) Sensitivity to operations**

Mitigation

- 4) Deference to expertise**
- 5) Commitment to resilience**

SECTION 2: Implement pragmatic debriefing using the Discovery, Learning and Application stages of debriefing.

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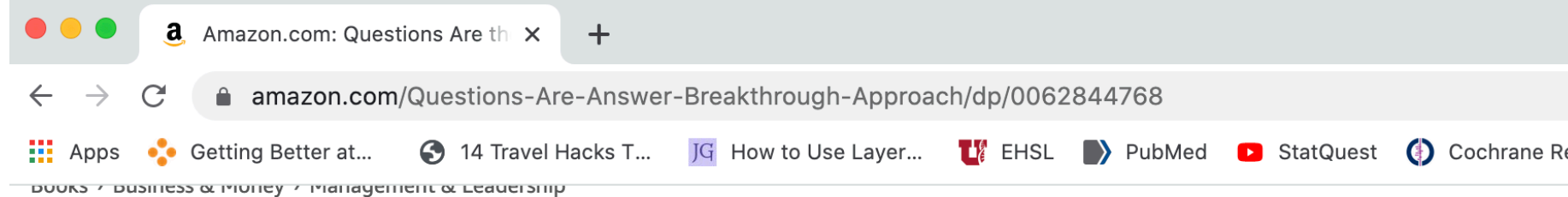
What is pragmatic debriefing?

“Pragmatic” definition: dealing with things sensibly and realistically in a way that is based on practical rather than theoretical considerations

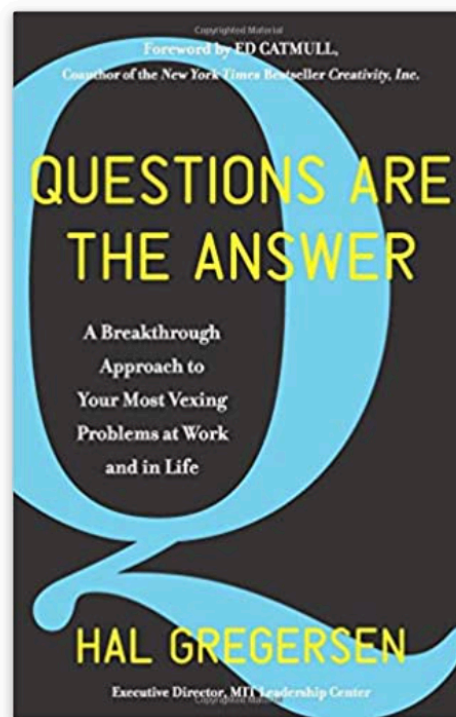
SECTION 2: Implement pragmatic debriefing using the Discovery, Learning and Application stages of debriefing.

It always depends on your objectives. It is always worthwhile to evaluate the objectives of the simulation event.

A suggested read:



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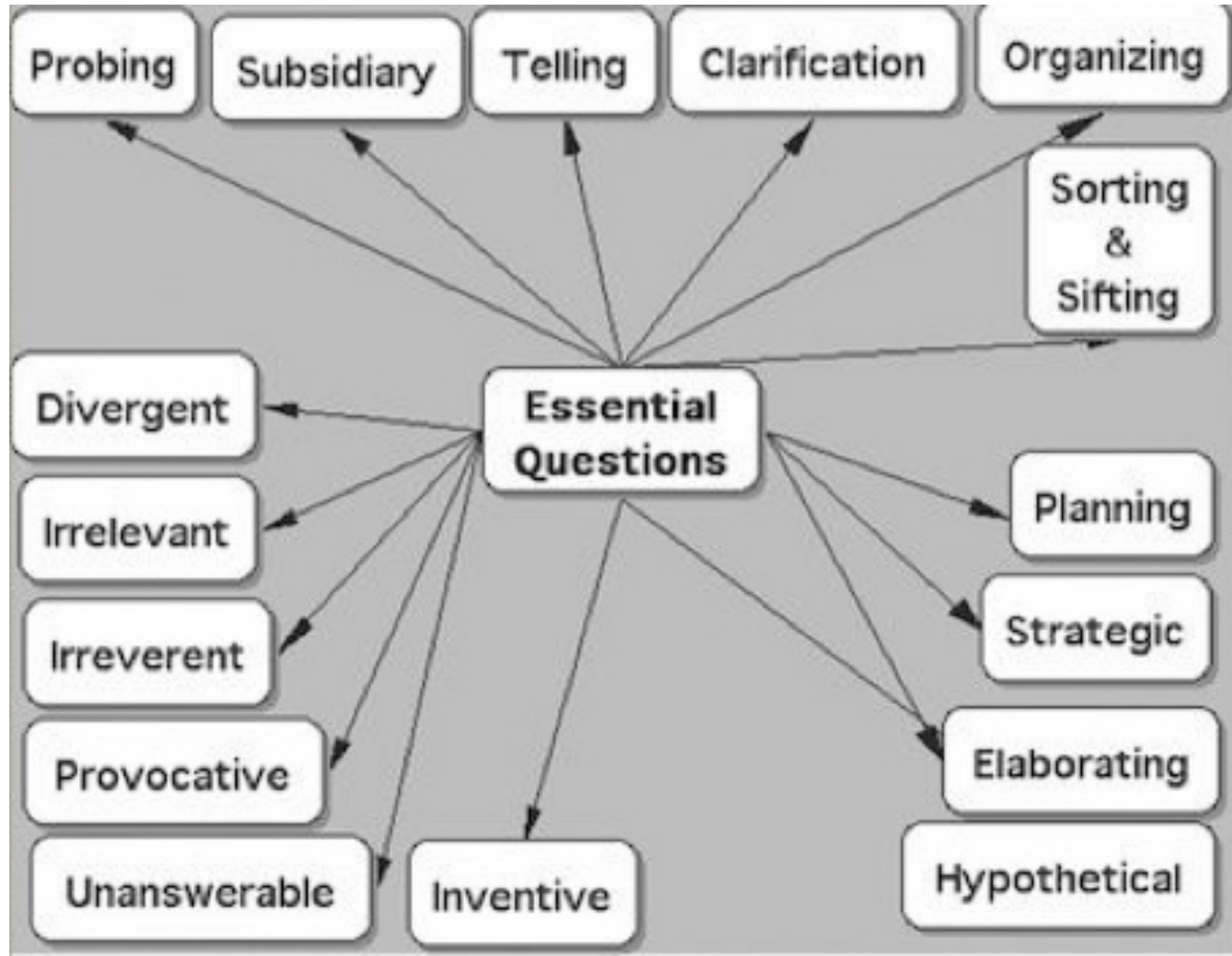
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What if you could unlock a better answer to your most vexing problem—in your workplace, community, or home life—just by changing the question?

Talk to creative problem-solvers and they will often tell you, the key to their success is asking

Questions,
Questions,
Questions...



CATALYTIC QUESTIONS

Questions,
Questions,
Questions...

Generative questions that have a paradoxical quality of being utterly surprising in the moment they are asked but in retrospect are seemingly obvious.

DO	DON'T
Open up space for people to do their best thinking	Put anyone on the spot
Invite people down an intriguing new line of thought that offers promise of an answer	Demand correct and predetermined answers
Knock down barriers to thinking thus channeling energy down productive pathways	Humiliate, demean or intimidate

SECTION 2: Implement pragmatic debriefing using the Discovery, Learning and Application stages of debriefing.



SECTION 2: Implement pragmatic debriefing using the Discovery, Learning and Application stages of debriefing.

LEARNING

SECTION 2: Implement pragmatic debriefing using the Discovery, Learning and Application stages of debriefing.



SECTION 3: Develop a plan for emotional surveillance during simulation activities using the Simulation Psychological Safety Algorithm

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During pragmatic debriefing, this presentation suggests we do not solicit emotions in debriefing.

Do we need to pay attention to psychological distress, emotions, stress and fear during simulation training?

SECTION 3: Develop a plan for emotional surveillance during simulation activities using the Simulation Psychological Safety Algorithm

Operationalizing Healthcare Simulation Psychological Safety

A Descriptive Analysis of an Intervention

Jared W. Henricksen, MD;

Catherine Altenburg, NBPTS, CHSE,
CHSOS;

Ron W. Reeder, PhD

Introduction: Despite efforts to prepare a psychologically safe environment, simulation participants are occasionally psychologically distressed. Instructing simulation educators about participant psychological risks and having a participant psychological distress action plan available to simulation educators may assist them as they seek to keep all participants psychologically safe.

Methods: A Simulation Participant Psychological Safety Algorithm was designed to aid simulation educators as they debrief simulation participants perceived to have psychological distress and categorize these events as mild (level 1), moderate (level 2), or severe (level 3). A prebrief dedicated to creating a psychologically safe learning environment was held constant. The algorithm was used for 18 months in an active pediatric simulation program. Data collected included level of participant psychological distress as perceived and categorized by the simulation team using the algorithm, type of simulation that participants went through, who debriefed, and timing of when psychological distress was perceived to occur during the simulation session. The Kruskal-Wallis test was used to evaluate the relationship between events and simulation type, events and simulation educator team who debriefed, and timing of event during the simulation session.

Results: A total of 3900 participants went through 399 simulation sessions between August 1, 2014, and January 26, 2016. Thirty-four (<1%) simulation participants from 27 sessions (7%) were perceived to have an event. One participant was perceived to have a severe (level 3) psychological distress event. Events occurred more commonly in high-intensity simulations, with novice learners and with specific educator teams. Simulation type and simulation educator team were associated with occurrence of events ($P < 0.001$). There was no association between event timing and event level.

Conclusions: Severe psychological distress as categorized by simulation personnel using the Simulation Participant Psychological Safety Algorithm is rare, with mild and moderate events being more common. The algorithm was used to teach simulation educators how to assist a participant who may be psychologically distressed and document perceived event severity.

Psychological Safety vs Psychological Distress

What's the difference?

PSYCHOLOGICAL SAFETY

- Feels safe
- Symptoms include well-being
- Speaking up & teamwork occurs
- Collaboration, Respect
- Problems come to the fore
- Requires Voice, Collaboration, Experimentation, & Reflection

PSYCHOLOGICAL DISTRESS

- Does not feel safe
- Symptoms may include anxiety or somatic complaints
- Leads to less teamwork
- Competitive, Contempt
- Problems are hidden or covered
- Distress is perhaps our natural inclination, it doesn't require much to get distressed or to distress others

SECTION 3: Develop a plan for emotional surveillance during simulation activities using the Simulation Psychological Safety Algorithm

Intermountain Simulation Consortium Psychological Safety Algorithm

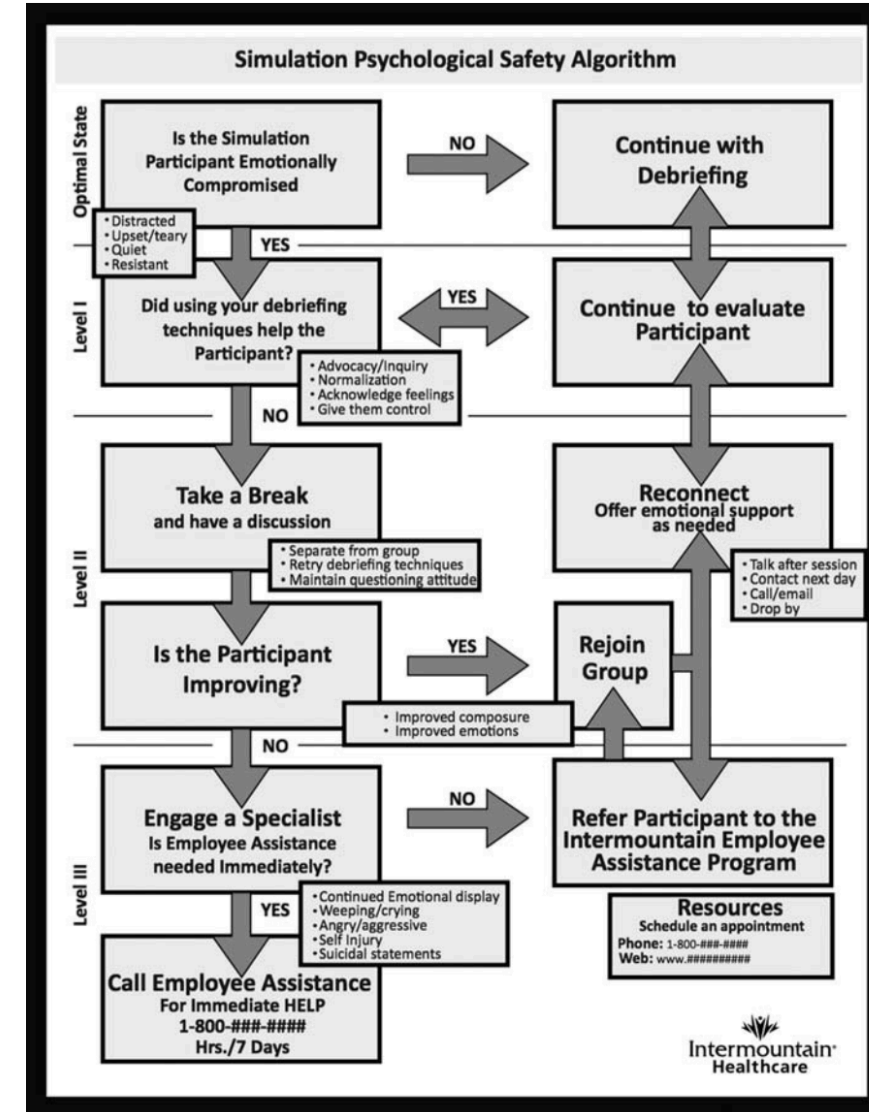


FIGURE 1. Simulation psychological safety algorithm. This is a picture of the algorithm depicting levels and an approach to an individual in a level.

SECTION 3: Develop a plan for emotional surveillance during simulation activities using the Simulation Psychological Safety Algorithm

Remember, social situations and stage fright can cause stress, but because we've been doing "impression management" since kindergarten we're actually pretty good at this.

Simulation Psychological Safety Algorithm

Optimal State

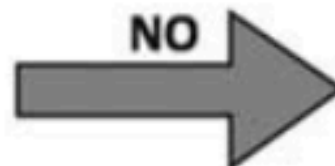
Is the Simulation
Participant Emotionally
Compromised

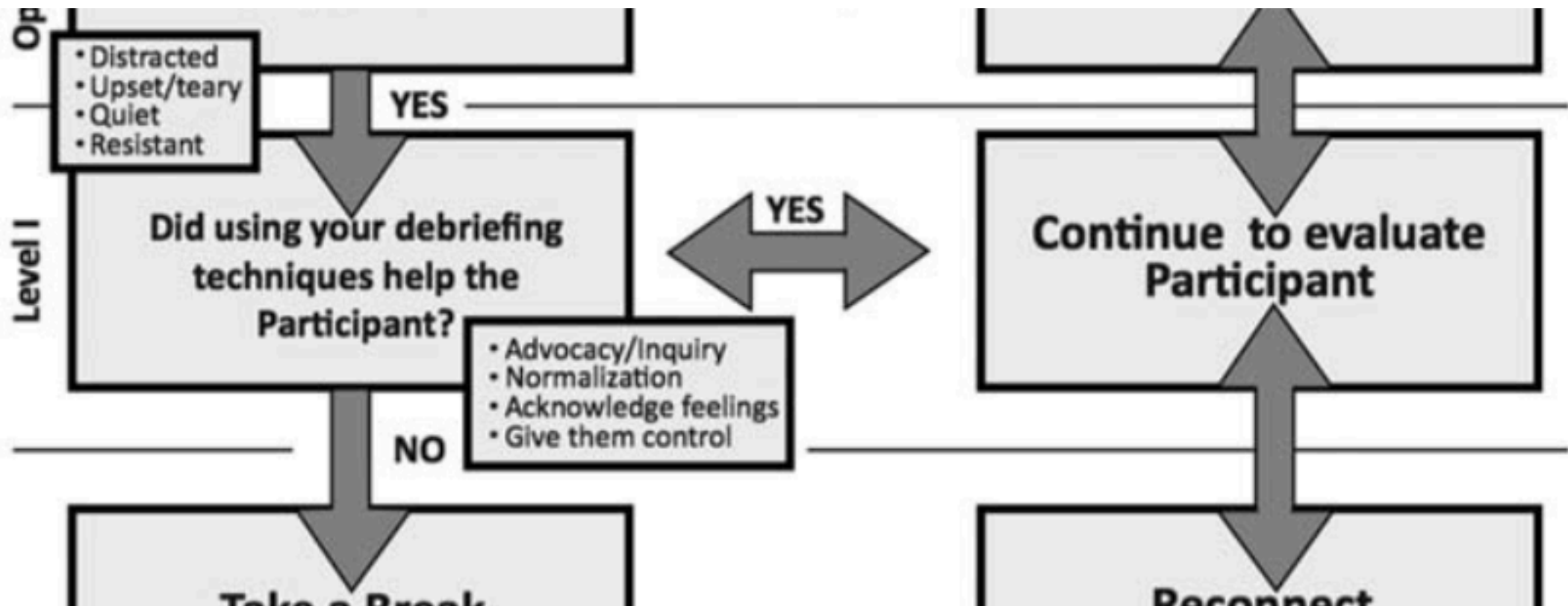
- Distracted
- Upset/teary
- Quiet
- Resistant

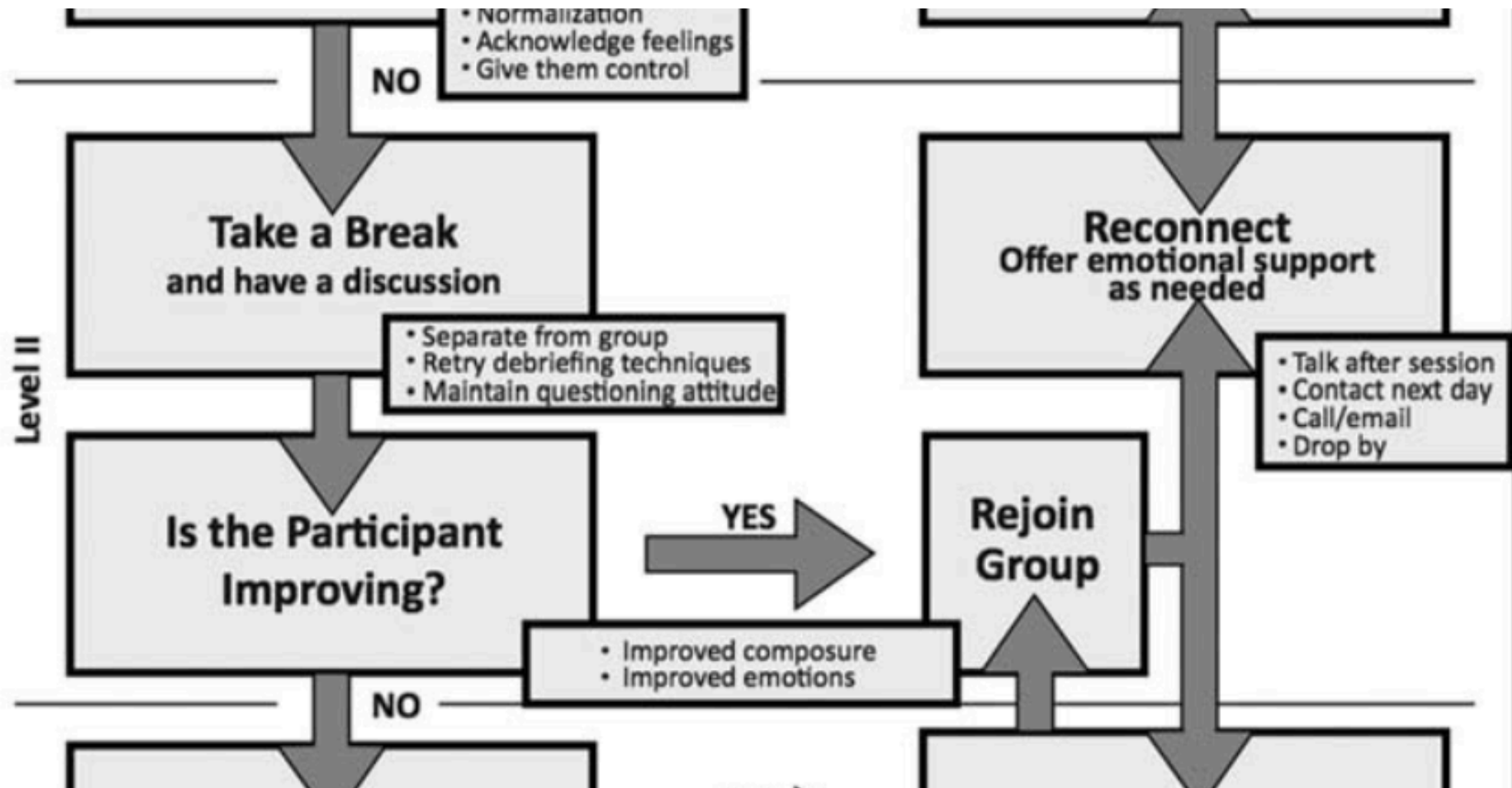
YES

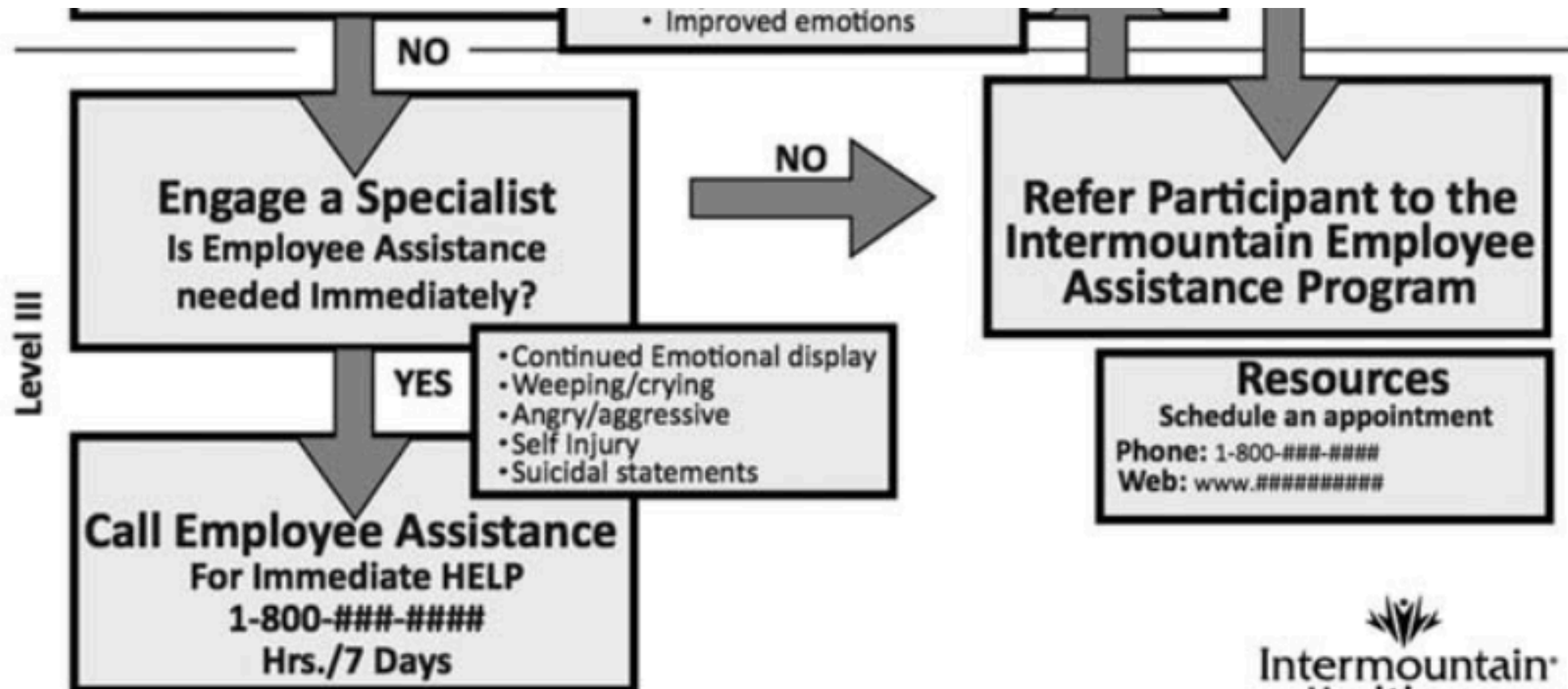
NO

Continue with
Debriefing

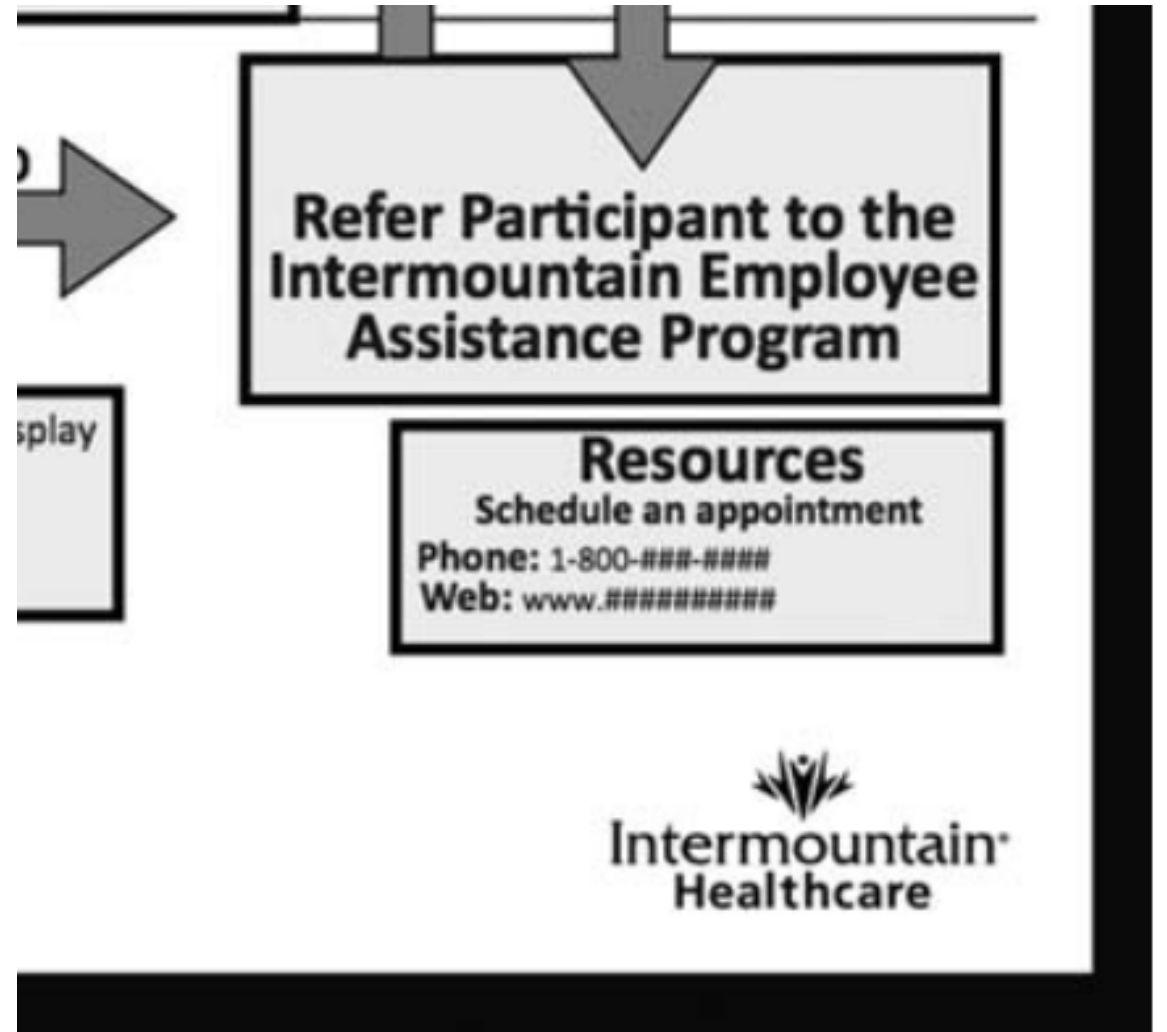








If a participant
is at a Level II or III:
Rejoin,
Reconnect,
and/or Refer To EAP



SECTION 3: Develop a plan for emotional surveillance during simulation activities using the Simulation Psychological Safety Algorithm

Most of us are not psychologists or psychiatrists, so refer to your institution's Employee Assistance Program (EAP) as needed.

SUMMARY

Now, what impressions have you had during this presentation?

How will you start?

How will you know it is working?

How will you know if you are doing enough?

***BUILD, PROTECT, AND MAINTAIN
PSYCHOLOGICAL SAFETY WHILE AIMING
TO INCREASE STRESS CAPACITY***

SET EXPECTATIONS high

✦ *There is no end to better* ✦

SET EXPECTATIONS high

THE END

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THANK YOU!

Have fun debriefing out there, and sim on!



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