Keep your Staff's Wilderness Medicine Training Sharp

Presenters:

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Presentation Learning Outcomes

- Gain the tools to facilitate accurate scenario-based patient assessment drills.
- Gain the skills to craft and use case studies effectively.
- Utilize field guides and texts to promote cognitive offloading and improve performance.

Dealing with Reduced Retention and Dilution

STORAGE	LOW RETRIEVAL	HIGH RETRIEVAL
HIGH	**Childhood Neighborhood**	**Your childhood pet's name**
LOW	Dinner you had on the first Monday of last month.	What you ate for breakfast today

Bjork and Bjork, 1994
Adapted from Cheung, 2021

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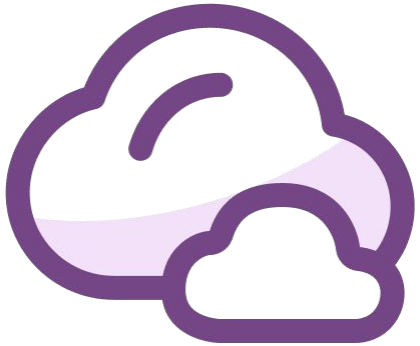

What skill or concept are you fuzzy about today, from your wilderness medical training?

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Dealing with Reduced Retention and Dilution

"As many skills deteriorate rapidly over the course of the first 90 days, changing frequency of certification is not necessarily the most obvious choice to increase retention of skill and knowledge. ***Alternatively, methods of regularly "refreshing" a skill should be explored that could be delivered at a high frequency - such as every 90 days."***

Anderson, Gaetz…

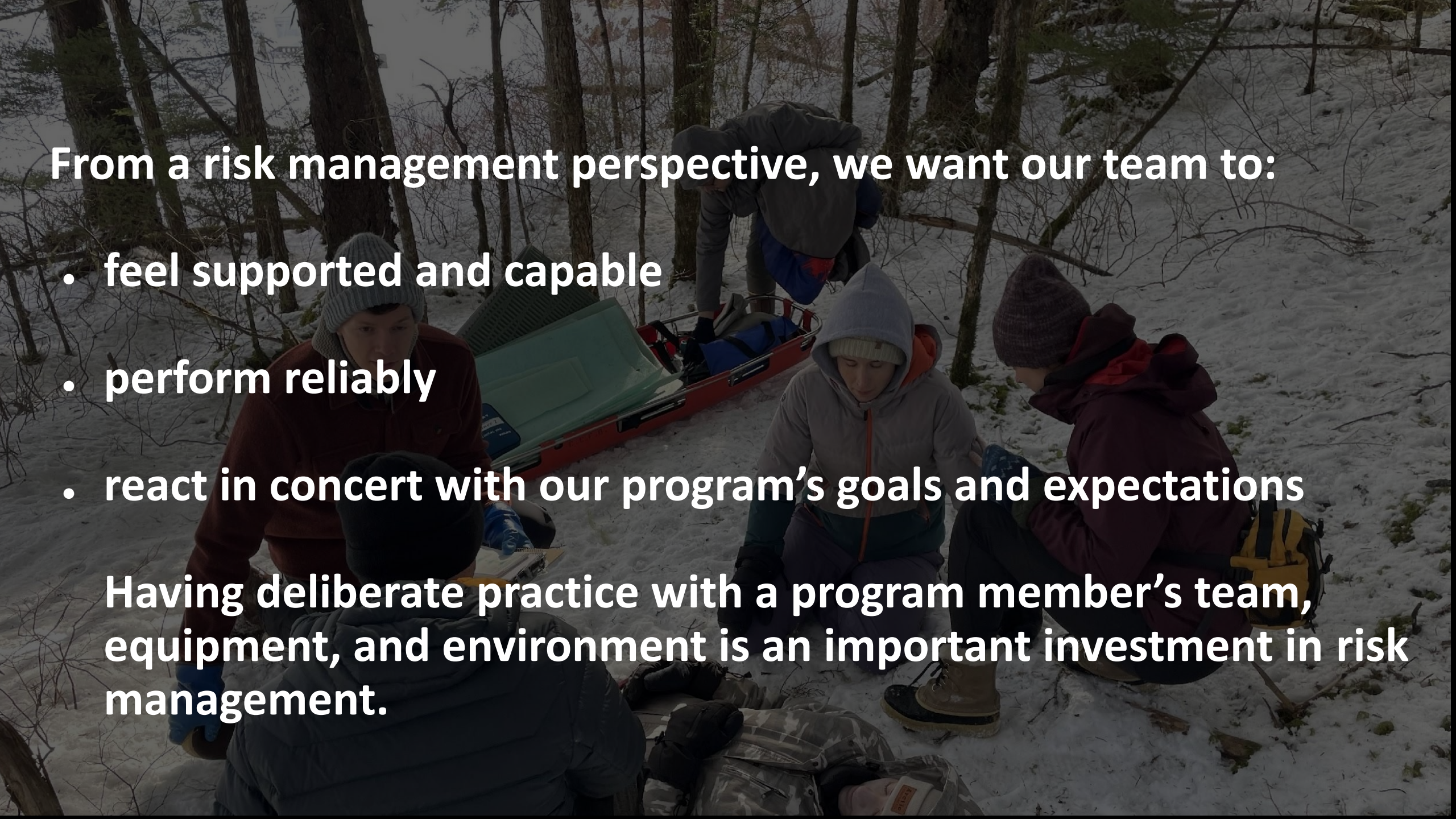
WILDERNESS FIRST AID RETENTION differences between the 8 and 12 month group ***were significant for knowledge and self efficacy***"

.-Schumann, et. Al

How many other skills or concepts is the program ***adding*** in rapid succession?

Framing new Schemas: Overcoming Content Specificity

"At my last program, we did (this)…How do you do it here?"



From a risk management perspective, we want our team to:

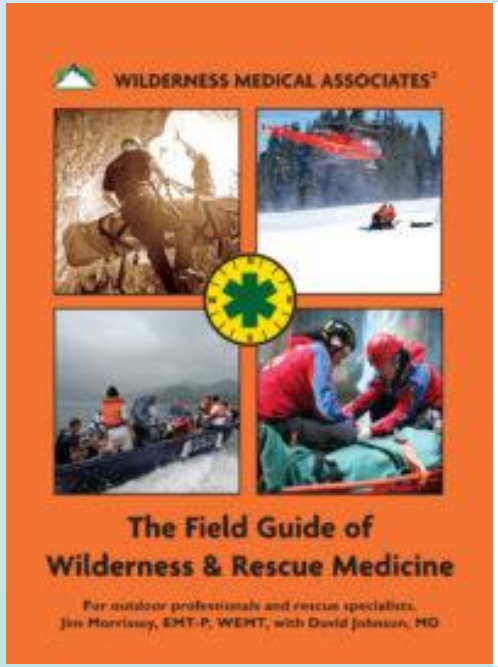
- feel supported and capable
- perform reliably
- react in concert with our program's goals and expectations

Having deliberate practice with a program member's team, equipment, and environment is an important investment in risk management.

Cognitive Offloading

Intrinsic
Relevant/Germane

Extraneous



VERBAL COMMUNICATIONS FORMAT:

"This is _____ (your name/level) . We have a _____ (age) year old male/female with a chief complaint of: _____

Level of consciousness is: _____

(Trauma Pts) Mechanism of injury is: _____

(Medical Pts) Medical history (pertinent) is: _____

Past Medical history (pertinent) is: _____

Signs/Symptoms: _____ (be specific)

Original vitals: BP _____ Pulse _____ (reg/irreg, strong/weak, etc.)

Respiratory rate: _____ Effort: regular, labored, short, etc. P. OX_____%

Lung sounds: _____

Temperature: _____ (for hypothermia/hyperthermia, possible infection)

ECG rhythm: _____

rate: _____ (fast >100, slow <60, normal >60 and <100)

QRS complex: _____ (regular/irregular) and _____ (wide/narrow)

Skin Color: normal, pale, blue, red, etc.

Pupil response: PEARL or otherwise

Other Pertinent Patient History

Allergies

Medications routinely taken: _____

Last oral intake: _____

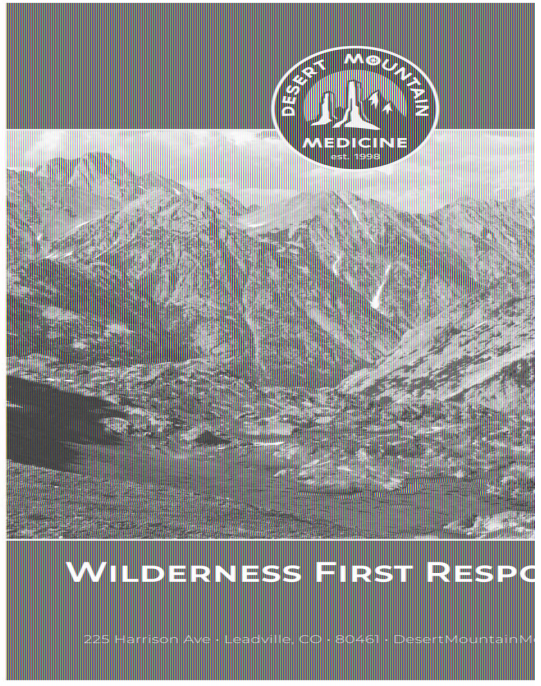
Treatment done: _____ (specify each action taken)

Current vitals: BP _____ Pulse _____ (reg/irreg, strong/weak, etc.)

Respiratory rate: _____ Effort: regular, labored, short, etc. Pulse Ox_____%

Lung sounds: _____

Treatment requested: _____



SOAA'P NOTES

Name/Age	Pronouns:		
Time/Date			
Subjective	Chief complaint (CC):		
S/sx			
Allergies			
Medications			
Pre-conditions			
Last ins/outs			
Events prior			
Objective			
Vitals	Time	Time	Time
HR			
RR			
BP			
LOR			
SCTM			
CSM			
PERRL			
Assessment **A'**nticipated worst case scenario			
Plan	(Tx):		

HOW TO **CALL FOR A RESCUE**

CRITICAL INFORMATION to relay when calling or radioing in:

1. **Name** and/or **organization**
2. **Coordinates**, mile marker on river, or **area on topo map**
3. **Stable** or **Critical MEDICAL?**
   cc: _____
   Stable or **Critical TRAUMA?**
   cc: _____
4. We need a rescue, **DO YOU COPY?**

PATIENT REPORT

- Our **phone number** is:
- I have a ____ year old patient who... (briefly describe the MOI/NOI).
- Patient's **chief complaint** is:
- Patient's **last set of pertinent vitals** are:
- Requesting a **helicopter** or **SAR** foot-crew at our location

Cognitive Offloading: Notes

- Reduces extraneous/ extrinsic noise while trying to learn a new concept or incorporate it in situations of escalating difficulty
- Knowing your resource matters.
  - It’s unfair to your team for them to learn about the kit, the paperwork, the treatment guidelines in the heat of the moment (or worse yet, after the event!)
- Templates don’t take away individuality, they give structure when things go sideways.
  - Don’t overbuild. Think: can I see it at night, when distracted? Need to know versus nice to know.

Pre-Season Training Tools

SPACED LEARNING

CASE STUDIES

EQUIPMENT FAMILIARIZATION

IN SITU SCENARIO

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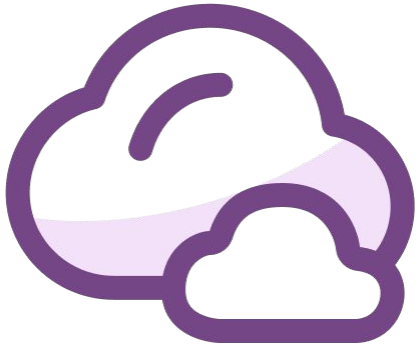
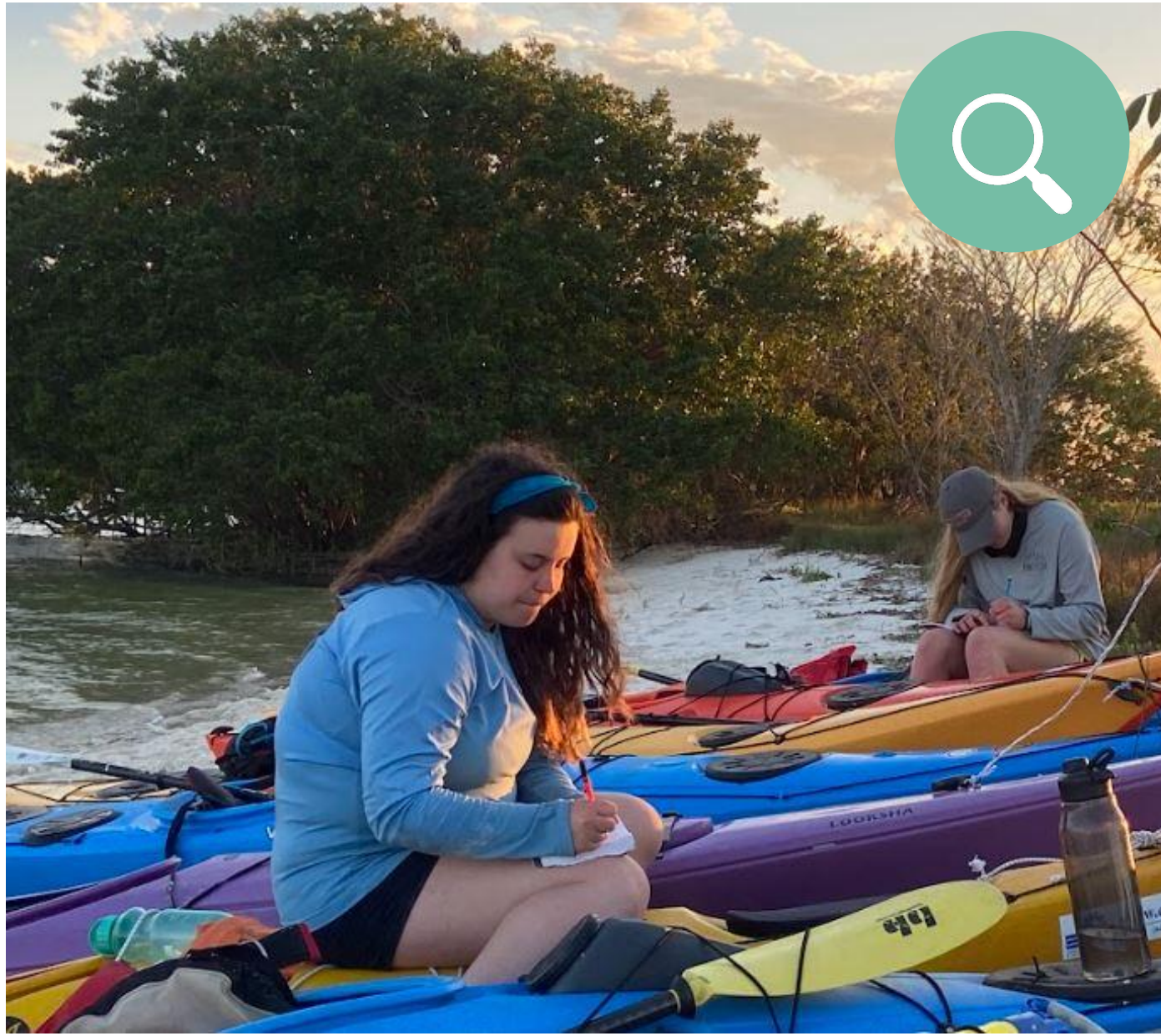


"Let's make it real(ly) Relevant" What are some injuries/emergencies that your leaders are likely to encounter?

Case Studies:
Ask Targeted Questions, give time for Self-Reflection



What are you most concerned about?

How will you know if that concern is materializing?

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What is a realistic additional component that would make this scenario even more challenging?

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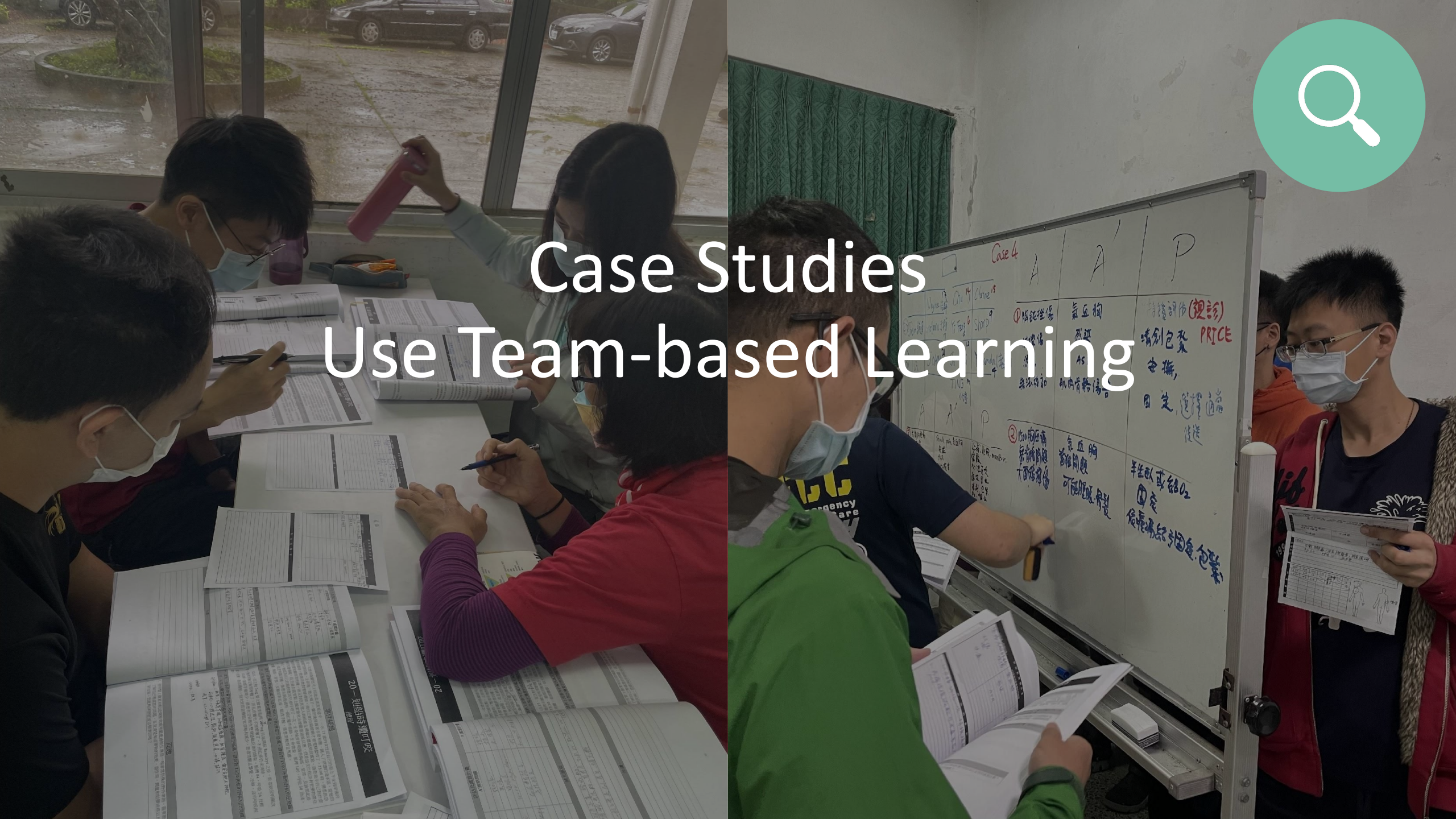
Tabletop Case Study - Design

- Focus on what actually happens
- Add a layer of complexity
- Include:
  - EAP, protocols, guidelines
  - List of rescue equipment
  - Location, weather, etc.
- Give ahead of time
  - Include a form/SOAP note for completion
  - Reflect on their own before meeting as a group

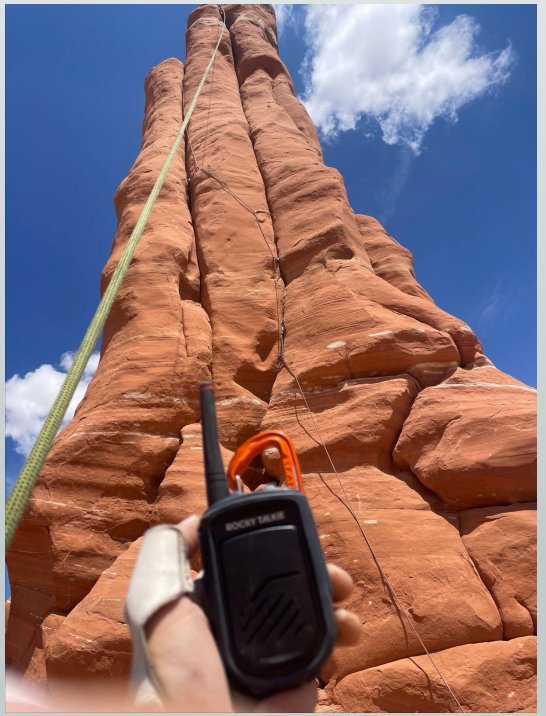


Case Studies
Use Team-based Learning

Case Studies: Notes

- Respectful and effective
- Focus on the “what actually happens”- start with what you know, not what you fear?
  - It's not uncommon that guides/ staff don’t know how to handle mild or “in between” cases
- Add targeted questions:
  - What are you concerned about and how would you determine if that was happening or not?
  - If it were 7pm, how would that affect your plan?
- With team-based learning
  - Give it to them ahead of time, break into small groups to answer questions and fill out forms on a group board- compare answers without judgement
  - We are the experts in teambuilding! This is the time to learn the team’s buzzwords, strengths, friction points beforehand to be more supportive and cohesive in the future

Equipment Familiarization



In Situ Scenario - Design

- Familiar trip
- Practice in comparable environment
- Consider simple & more complex incidents
- Involve medical advisor
- Provide pre-trip planning information
- Issue rescue equipment and course gear
- Include one transition
- Delay response times

Pearls for Effective Scenarios

Test Kitchen

Scenarios: Notes

- Outside patients improve buy-in
- Moulage is cool but not necessary

Goal Practice Real

- Provide pre-trip planning information that is realistic
    - Location, weather, time of day, number in the group, #day of the program
- Provide a training first aid kit
    - Do the things, open the packages
    -
- Have them make a 911 call as part of your staff training can be very helpful! Have the cell/sat phone template out, make the call. Have someone they don't know on the other end of the phone. Put it on speaker phone.
- Test kitchen for visualization!
- Make the call for consult/ help and have someone on the other line that they don't know
    - Have the answers ready
- Doing a 911 call as part of your staff training can be very helpful! Have the cell/sat phone template out, make the call. Have someone they don't know on the other end of the phone. Put it on speaker phone.
- Wait. It's uncomfortable and this isn't Hollywood.
- Include one transition- get the person to camp, into/ under a tent
- What is the group doing?
- Common pitfalls? What have you done to correct this

Formative Scenario Development Worksheet

Title:	
Preparer Name:	Date:
Objectives/ Outcomes:	
Prerequisite Knowledge of Team/Staff:	
Props:	

Pre-trip Planning

Location, Time of Day, Season:
Duration/ Time in Program:
Group Size (staff/ participants):
Special Considerations:
Participant Medical History Form Copy Available? Yes/No (*if No, provide answers f allergies, medications, medical history, and emergency contact from actor*)

Situation

Scene Description (include details such as safety gear, other stressors, props:
Participant's Situation (medical, injury, behavioral; include key phrases for actor to consider); How did it happen?

Vital Signs	Vital Signs	Vital Signs
Mental Status:	Mental Status:	Mental Status:
Pulse:	Pulse:	Pulse:
Respirations:	Respirations:	Respirations:
Skin:	Skin:	Skin:
Other:	Other:	Other:
Physical Exam Findings	Medical History (if no form)	Times
Relative to Situation, List Below:	Allergies:	Received Request for Help:
	Medications:	Returned Call with Plan for Help:
	History:	

Notes:

Scenario Topic

What topic did you choose for your Scenario?

Training Goals

- Bridging the gaps
- Everyone is learning from it
- Collaborate with outside specialists
- Normalize cognitive offloading
- Run periodic training sessions
- Conversations & skill drills continue
- Don’t forget the basics
- Equipment checks

From a risk management perspective, we want our team to:

- feel supported and capable
- perform reliably
- react in concert with our program’s goals and expectations


Thank you!
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